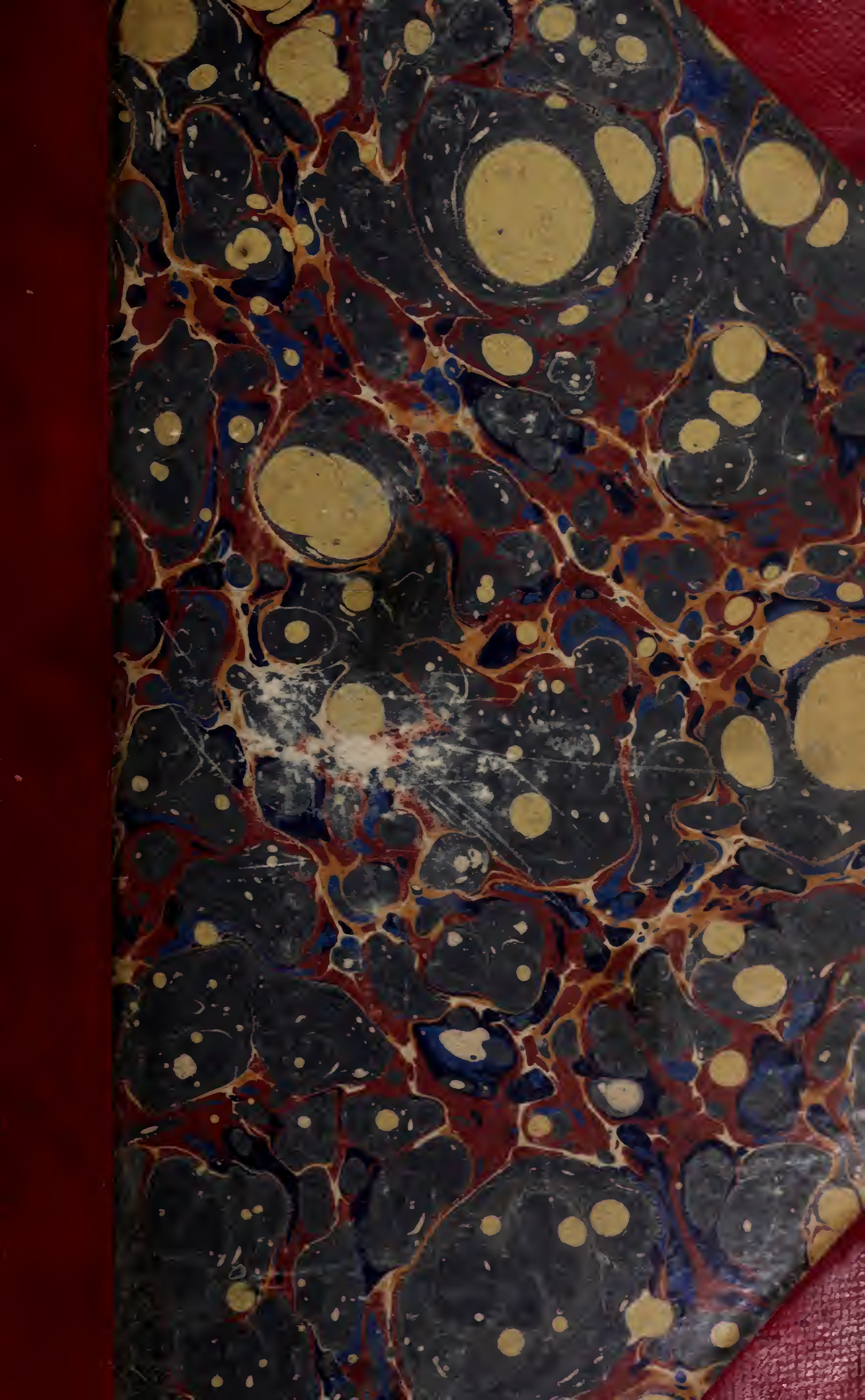

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NEW ORLEANS

MEDICAL NEWS

AND

HOSPITAL GAZETTE:

A MONTHLY JOURNAL.

VOL. VI.

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NEW ORLEANS

Medical News and Hospital Gazette.

VOL. VI. MARCH, 1859. NO. 1.

THE CHEMISTRY OF RESPIRATION.

A Lecture Delivered to the Class of the New Orleans School of Medicine, by I. L. Crawcour, M. D. Professor of Chemistry and Medical Jurisprudence.

Gentlemen: Closely connected with the subjects we have been examining (the atmosphere and carbon), and intimately linked in its chemical relations, is the function of respiration, which may be considered a vital act depending entirely upon chemical changes for its due performance and effect. The inhalation of oxygen, its combination with the tissues and the expulsion of the results of that combination, compose, perhaps, the most important of those actions which constitute life, and in this view an exact knowledge of the changes impressed by respiration upon the organism, would be one of the foundations of medical science and form an important aid to the scientific treatment of disease.

If we were asked to define what respiration is, our answer is concise. In its simplest view, it is a mere interchange of gases, consisting of the passage of carbonic acid and water out of the system, by means of the lungs, and the inception of oxygen through the same organs.

This function of respiration, to a certain extent removed from the control of the will, knows no intermission, has no cessation while life continues; taking the average number of respirations at 16 in the minute, "the gases essential to the continuance of organic life have been renewed 360 times in an hour; in the course of twenty-four hours 23,040 times, and in a single year have reached the enormous amount of 8,409,610 times.

Respiration is carried on in man by means of the lungs, which consist of an infinite number of small vesicles or air cells, connected with the terminal bronchus of the bronchial tubes, into which they open. The walls of these vesicles are formed of exceedingly thin and transparent membrane, and owing to their close package and arrangement, an enormous surface is exposed both for exhalation and reception; the ultimate air cells are very minute, varying in size from the one-ninetieth to the one-twelve hundredth of an inch. On each side of them are spread the capillaries of the lung, and so closely placed are they, that the spaces between them are less than their own diameters, which, on an average, are about one-three hundredth of an inch. The blood, in this way, is brought closely in contact with the cells conveying air, and arterialization is rapidly effected. As each terminal bronchus has a separate cluster of vesicles attached to it, this forms a miniature representation of the entire lung, which is composed of a number of such lobules. The number of air cells attached to each terminal bronchus is about 20,000, and the total number in the entire lung is estimated at 600,000,000.

Between the respirations of mammalia and fishes no difference exists, in both there is diffusion of carbonic acid and oxygen; the difference is one of degree, depending on the different instruments by which the interchange is effected.

In fishes the water is driven through the gills by muscular compression; oxygen is thus imparted from the water which holds it in solution, and carbonic acid is carried away. The air dissolved in the water is the medium used. Water ordinarily holds in solution 20.3 per cent. of its volume of air, consisting of oxygen 29.8, nitrogen 66.2, and about 4.0 of carbonic acid in the hundred parts. After fishes had remained in it for some time, the water still contained 17.6 per cent. of its volume of air; but this in one hundred parts, now contained only 2.3 of oxygen, 63.9 of nitrogen, and 33.8 of carbonic acid. There had been, therefore, consumption of oxygen and evolution of carbonic acid, and a continuance in the same water would have resulted in the destruction of the fishes, owing to want of æration.

In tranquil respiration from sixteen to twenty alternations usually occur in a minute, and about twenty cubic inches of air are introduced at each respiration. The respiratory movements bear a numerical proportion to the pulsations of the heart, and usually averaging one to every four or five pulsations; when this proportion is widely differed from, there is always reason to suspect some obstacle to the æration of the blood, or some disorder of the nervous system. In pneumonia, where a certain amount of lung tissue is unfit for use, the number of respirations increases in a more rapid proportion than the acceleration of the pulse, the ratio being one to three or even one to four. The same occurs in pthisis, and other disorders rendering useless certain portions of the lung. In typhoid fever, where the nervous system is much interfered with, the number of respirations sinks very low, frequently not being more than one to every eight pulsations.

Respiration being so absolutely essential to life, it is fortunate for our well being that our control over it is limited, and belongs to the class of functions denominated automatic. A particular portion of the encephalon, the medulla oblongata, presides over this function, and, although we can, for a limited period, by an effort of the will, suspend the respiratory movements, yet when this suspension is continued beyond a certain time, the stimulus of the retained carbonic acid, conveyed by the excitory nerves to the medulla, becomes too strong, a powerful reflex movement is performed, and an uncontrollable and powerful inspiration ærates the blood. No man can commit suicide by voluntarily holding his breath—the control of the will over the respiratory muscles being lost, when the imperious necessity for breathing makes itself felt.

The quantity of air changed in the lungs during each respiratory movement is very variable, and differs with different persons. It is ordinarily computed at from 20 to 25 cubic inches; this, the quantity usually changed in tranquil respiration, has been termed by Mr. Hutchinson breathing or tidal air; that which can be inhaled by the deepest possible inspiration, after ordinary tranquil breathing, he terms complemental air, and this differs with different persons.

After ordinary expiration there always seems a certain portion of air, which may be displaced at will by a powerful expiration. This he terms supplemental or reserve air; and again, even after the most violent effort of expiration, the lungs are never completely emptied; there always remains a large quantity, over which we have no voluntary control. This he terms *residual air*—the quantity depending upon the size of the chest, and varying from 40 to 260 cubic inches.

The respiratory capacity of the chest is indicated by the quantity of air which a person can expel from his lungs by the most forcible expiration, after the fullest inspiration which he can take. This is termed the *vital* capacity, and includes the breathing, supplemental and complemental airs.

It was found by Mr. Hutchinson, that the average vital capacity of a healthy person, 5 feet 7 inches in height, at a temperature of 60° F., was 225 cubic inches, and that this bore a singular relation to height; for every inch of stature above 5 feet 7 inches the capacity is increased on an average 8 cubic inches, and for every inch below is diminished by the same amount. It may be expressed by the formula, "that for every inch of stature, from 5 to 6 feet, eight additional cubic inches of air (at 60° F.) are given out by forced expiration after a full inspiration."

In women, as a rule, the vital capacity is only half of what it is in men of the same age.

The total amount of air which passes through the lungs in 24 hours will vary with the extent and frequency of the respiratory movements. The quantity has been variously estimated at from 226 to 339 cubic feet. This question is important practically, in order to determine the quantity of air required for ventilation in schools, prisons, workhouses, etc. Eight hundred cubic feet seems to be the minimum which can be safely assigned.

The chemical changes which occur in respiration consist in the absorbtion of oxygen, and the exhalation of carbonic acid—from 4 to 6 per cent. of oxygen disappears, and the expired air contains from 3 to 5 per cent. of carbonic acid. The quantity of carbonic acid contained is, therefore, usually less in bulk than the oxygen absorbed, and the proportion of the air changed appears to vary with the frequency of the respirations. Vierorat found if he only respired six times in the minute, the quantity of carbonic acid was 5.5 per cent. of the whole air exhaled; with twelve respirations it was 4.2; with twenty-four it was 3.3; with forty-eight it was 3.0 and with ninety-six it was 2.6 per cent.

This change does not take place in the lungs, which act merely as carriers, but in the blood itself; if oxygen had entered into combination with the free carbon imagined to exist in the lungs, as was supposed by Lavoisier, the temperature of the lungs would necessarily have been higher than that of any other part of the body; for the combination of oxygen with carbon, which forms carbonic acid gas, is the chief source of animal heat. The lungs are, however, the least warm of any of the organs of the body.

Respiration differs in no respect from ordinary combustion. The oxygen received through the lungs circulates in the blood, combines with the worn out and effete tissues, oxidising them, forming a series of lower intermediate compounds, until ultimately they are expelled from the system in the form of carbonic acid. It is probable that the oxygen in the blood is both mechanically mixed and chemically combined; that it is chemically combined is beyond a doubt. Blood will take up one-tenth its volume of oxygen gas, thus having the power of absorbing, on an average, nearly thirteen times as much oxygen as water does; this in itself is sufficient to prove that the oxygen is in a state of combination. Liebig reasons that the oxygen must exist in the blood in some other form than mere mechanical diffusion, for while one thousand volumes of water, when agitated with air until thoroughly saturated, take up only nine and a half volumes of oxygen, one thousand volumes of blood, treated precisely in the same manner, absorb from one hundred to one hundred and fifty volumes of the gas. Now, since the liquid part of the blood is nothing but water, and as blood absorbs from eleven to fourteen times more oxygen than water does under similar circumstances, it is obvious that the excess of oxygen taken up by the blood cannot depend upon the absorbtive power of its liquid, but upon the presence of certain constituents having much more powerful attractions for oxygen than water possesses. "Although the degree of attraction by which the oxygen is retained in the blood is comparatively slight, this is by no means a proof that the gas is not in a state of chemical combination, it being well known that numerous chemical combinations are as readily or even more easily destroyed than the oxygen in the blood, yet, nevertheless, they are true chemical compounds."

It was found by Magnus, that both venous and arterial blood equally contained carbonic acid and oxygen, the relative proportion only being different. The arterial blood contains most oxygen, the venous most carbonic acid.

Arterial blood contains from ten to twelve and a half per cent. of oxygen. In venous blood it is found only in half this quantity. The quantity of carbonic acid in arterial blood is twenty per cent. of the volume, but amounts to twenty-five per cent. in venous blood. Nitrogen, also, is found, but its quantity is small, being only in the proportion of 1.7 to 3.3 per cent., and no appreciable difference is found between the quantities contained in arterial and venous blood, respectively.

All these gases may be procured from the blood, by exposing it to the vacuum of an air pump, but the most certain mode is by agitating it with either hydrogen or nitrogen, which take the place of the gases they expel.

That the blood does really chemically combine with oxygen and carbonic acid, is beautifully proved by some experiments of Dr. Harley. His experiments were made with a view of ascertaining, first, whether blood has the property of chemically combining with oxygen; secondly, which of its constituents it is that combines; and thirdly, whether these constituents, by combining with oxygen, simply become oxidized, or whether they at the same time give off carbonic acid gas.

In order to ascertain the first of these points, blood was thoroughly saturated with oxygen by being well agitated with air in a peculiarly shaped retort, and the results carefully examined. It was found that after blood had been thus thoroughly agitated with air, the gas remaining in the retort differed much from the ordinary composition of the air. Ordinary air has in every hundred parts 20.960 oxygen, 0.002 carbonic acid, and 79.038 nitrogen. The gas found in the retort, after the air had been agitated with blood, contained, in one hundred parts, oxygen 10.42, carbonic acid 5.05, nitrogen 84.53.

We find, therefore, that 10.54 per cent. of oxygen has disappeared, while 5.05 per cent of carbonic acid now exists, where only a trace of it could formerly have been detected; also, a certain quantity of the oxygen, which has disappeared, has perhaps been used in oxidizing some organic constituents of the blood, for if we add the oxygen combined with the carbon in the form of carbonic acid to the oxygen remaining free and unchanged in the retort, we find the sum only amounts to 15.47 per cent., instead of being 20.96 per cent., as it ought to have been, if none of the oxygen were retained in the blood.

It is possible that the oxygen thus lost combines with some of the constituents of the blood, and prepares them for assimilation, and probably, also, renders some of the effete products more fit for excretion.

In his second inquiry, viz: with which of the constituents of the blood did the oxygen combine, Dr. Harley found that fibrin exercised a considerable influence; air shaken up with fibrin was found to present the following composition, at the end of twenty-four hours: in one hundred parts, oxygen 6.81, carbonic acid 11.17, nitrogen 82.02—showing that fibrin itself takes up a certain quantity of oxygen, and gives off a stated amount of carbon combined with oxygen in the form of carbonic acid; albumen, also, has a powerful absorptive action on oxygen. On allowing albumen to remain in contact with air for fourteen hours, it was found that one hundred volumes of the resulting air contained oxygen 17.05, carbonic acid 2.19, nitrogen 80.86.

Certain comparative experiments were also tried in order to see which of the two, the coagulum or the serum of the blood, exercised the higher combining power. Air agitated for six hours, with the coagulum (which, it will be recollected contains the fibrin and blood corpuscles), contained, in one hundred volumes, oxygen 8.57, carbonic acid 7.29, nitrogen 84.14; 12.390 parts of oxygen had disappeared, and 7.283 parts of carbonic acid had been produced.

With a similar experiment on serum, the air analyzed contained 16.74 oxygen, 2.30 carbonic acid, 80.96 nitrogen. The difference between these two experiments is very striking. The coagulum containing the fibrin and blood corpuscles excited a more powerful chemical action upon the oxygen of the air than the colorless serum, which contains only albumen.

To a certain extent, this may be due to the hæmatin, for it is found that certain coloring principles have a strong affinity for oxygen, and give out carbonic acid. This property was first made known by Chevreuil. It is found, that even in plants a close connexion exists between the distribution of the coloring matters and respiration; those parts of a plant, destitute of coloring matter, entirely lack the property of absorbing oxygen and disengaging carbonic acid. Dr. Harley found, that by agitating even so small a quantity as one volume of hæmatin with two of air, that a great loss of oxygen occurred; in one hundred volumes the air contained oxygen 16.01, carbonic acid 3.80, nitrogen 80.19. The coloring matters of the blood are therefore true respiratory agents, and the blood corpuscles may owe their property of transporting the respired gases, as much to their coloring matters as the iron they contain.

(To be continued.)

A NEW INDIGENOUS REMEDY.

By T. Morton Lyle, M. D., Texas.

Messrs. Editors:—Conceiving that I have found a valuable therapeutic agent in one of our indigenous plants, I offer the following remarks, which, if you think them worthy a place in the *New Orleans Medical News and Hospital Gazette*, are at your disposal:

During the summer of 1851, while examining some among the thousands of brilliant petals that bedeck our prairies, I discovered a species of the Malva—the *Malvaviscus Drummondii* of Ter. and Gray. H. N. A., p. 230, Nat. Ord. Malvaceæ.

In 1839, it was noticed by Prof. J. L. Riddell, M. D., of New Orleans, during his sojourn in this country, having been previously discovered by Drummond. Leaves alternate, stipuled; calyx 5, parted; corolla 5, petalled; petals erect, convolute; stygmas 4; carpels 5 but united into a berry, which is 5 celled, each cell containing a seed. The berries, or apples, as they are called, ripen in the latter part of the summer, and are then of a scarlet color. Herb, 2 or 3 feet high, grows abundantly in moist places throughout the tertiary region of Texas. It also grows sparsely both in the diluvial and cretaceous regions.

All parts of the plant abound, more or less, in mucilage, but the root yields the greatest amount, and is the only part prescribed by myself. It is known commonly as the Spanish apple, or Spanish mulberry—the former appellative from the fruit; the latter from the similarity of the leaves to those of the Nat. Ord. Urticeæ. It yields its mucilage readily by decoction and by putting portions of the root into cold water, a thick, ropy exudation of bland and agreeable mucilage, superior to that of the Cactus Opuntia, or the Ulmus Fulva, is found suspended. I consider it a valuable therapeutic agent and addition to our catalogue of demulcents and emollients. The root, when dry, very much resembles that of the Althæa Officinalis; it should be dug in the early part of the fall, well washed and scraped, to remove the cuticular bark, and then divide and remove the woody part, and place in some cool, dry and shady place for future use. Boiling water removes starch from it sparingly, and, when cold, is affected by iodine. I have made a partial analysis of the root and flowers; in the former there is a little starch, a minute quantity of uncrystallizable sugar, about 20 per cent. of free mucilage, a trace of acid (probably malic), and some other unimportant constituents. I use the mucilage as a vehicle for the administration of other remedies, and use it freely in the form of syrup[*], or by maceration[†], or decoction, simp.[‡] or comp.[§] in diseases of the mucous membranes, hoarseness, catarrh, pneumonia, inflammatory and congestive fevers, acute dysentery and diarrhœa, renal irritation, vesical catarrh, acute gonorrhœa, as a cataplasm[||], for ulcers and other suppurating surfaces. This agent acts directly by lubricating the diseased surfaces and blunting the acrimony of its secretions, and indirectly by its soothing influence on the alimentary canal, and the sympathetic transmission of that influence to remote organs which are affected. These thoughts are offered as a tribute to that noble science, for whose advancement I offer my mite.

Other preparations, such as ointments, infusion, etc., may be made.

GONZALES, Texas, January 8th, 1859.

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[*] *Syrup of Spanish Apple*—Rp. Rasped root ℥ viii; white sugar ℔s. iiss; water oct. iv. Boil the root and water down to one-half, and press out the cooled liquor. Set by for dregs to subside, then decant; add the sugar, and boil to proper consistence.

[†] *Maceration Sp. Apple.*—Rp. root ℥ i; cistern water oct. ij; macerate, and use ad lib.

[‡] *Simp. Decoc. Sp. Apple.*—Rp. dried root ℥ iv; preserved peaches ℥ ij; water oct. vii. boil to Oct. vj; strain and set aside until the dregs have subsided, then decant.

[§] *The Decoct. Comp.* is made in a similar manner, with the addition of liquorice root ʒ iij; seneka ℥ ij.

[||] *Cataplasm Sp. Apple.*—Rp. Rasped root q. s; corn meal mush q. s; boiling water q. s.

Sp. Apple Lozenges.—Powdered root 1 part; white sugar 7 parts: mucilage of gum tragecanth q. s.; form lozenges of gr. xx.

Pulv. Sp. Apple Root.—Rp. pulv. root and pulv. extract liquorice *aa* ℥ iij; Nitrat. Potass. ℥ ss; camph. pulv. ℥ i. M. divide into pulv. No. xxx. Take one three times a day.

VESICO-VAGINAL FISTULA—CASE No. 3—CURE.

By D. Warren Brickell, M. D., Prof. of Obstetrics in the N. O. School of Medicine.

In the November, 1858, number of this Journal I reported two successful operations for vesico-vaginal fistula. I have now the pleasure of reporting a third case, and trust at an early date to report a fourth.

On the 20th January, 1859, Dr. Sunderland of this city, sent me Mary Ann Niebel, a native of France, aged 41 years, in this country 14 years, resident of Gretna (opposite the city of New Orleans), mother of eight children. Patient had given birth readily to seven living children; but three years ago she fell in labor with her eighth, breech presenting. She was in labor but a short time, when the membranes broke, and, notwithstanding she went into hard labor, as usual, the child was not expelled. A midwife only was in attendance, and she insisted that the services of a physician were not required. Suffice it to say, that at the end of fourteen hours, by dint of the hardest pulling on the part of the midwife (the husband being made to press on the abdomen with all his strength, so that the poor patient actually fainted under the operation), the child was pulled into the world with its legs and thighs fractured in sundry places. In due time, inflammatory symptoms, in the vaginal region, manifested themselves, and when Dr. Sunderland was called to her he found the parts in a sloughing condition. Under proper treatment she recovered, but with extensive loss of tissue between the bladder and vagina, with, of course, constant flow of urine through the vulva. From that time to the time of her coming to me she had been, of course, a miserable sufferer; she had applied to medical men for relief, but nothing had ever been attempted; indeed, as late as eighteen months ago, she applied to a distinguished surgeon of this city for relief; but being told by him that "all the men in this world can't cure you," she bowed to the dictum and sorrowfully sought her home, resigned to her more than miserable fate. Thanks be to the printing press, however, this poor woman is not only rescued from the despotic fiat of professional authority, but she is restored to health and happiness—and this not through the united efforts of "all the men in the world," but by the feeble efforts of an atom in the great body human—a man. Seeing the report of two successful cases above referred to, Dr. Sunderland, with that liberality, which is ever a shining characteristic of the true physician, and which leads us to know that one man (our poor self), can neither know nor do all things, sent her to me, with the expression of a hope, that, although a bad case, I might give her relief.

On the 20th of January, Mrs. N. placed herself under my care. On examination, I found a transverse fistula through the vesico-vaginal septum—the anterior edge of the same being just an inch from the urethral orifice, and the posterior edge about seven-eighths of an inch further up the canal. The fistula extended clear across the septum, would have readily admitted the passage of a medium sized hen's egg, and, when the patient laid down on the back, the inverted bladder would protrude freely through the vulva. All the tissues around the fistula were in a healthy condition, but the inner portions of the nates and the labia minora and majora were considerably excoriated by the passing urine. The canal of the urethra was entirely pervious, and the edges of the fistula of fair thickness. The lips of the uterus had evidently been involved in the extensive inflammation which followed delivery, for the organ did not at all protrude into the vagina, and the os, which was transverse, was nearly an inch long. Indeed, the parts in this region had anything but a natural appearance. Her general health was very good, though, of course, she was at all times dejected. I told her I thought I could cure her, but I would not promise to do so in one or three operations. Of course she consented to undergo any necessary amount of suffering.

On the 23d of January, assisted by several medical gentlemen from both the city and country, as well as by several of my pupils, I operated with the silver wire and shot of Sims and the button of Bozeman. The cutting was very extensive, as I surrounded the fistula by a denuded ring half an inch wide at all points, except just in the two extremities of the opening, where I thought denudation to the extent of a quarter of an inch would be sufficient. The bleeding was very profuse, though not to such an extent as to depress the patient, and it was fully two hours before the parts were ready for the application of the button. Nearly the whole of the cutting was done while the patient laid on her side; the sutures were passed while she assumed the position on the hands and knees. Five sutures were passed—the needle being pushed boldly through the tissues, without regard to penetration of the bladder. At the end of two hours and a half the button was applied, and the operation complete. The patient bore the operation, which was certainly very painful, with fortitude rarely witnessed—rarely uttering a complaint, and never shrinking from knife or needle.

The catheter (an ordinary female) was at once passed, and made permanent by means of ligatures attached to a twine around the waist, and the patient was placed on her left side on the couch prepared for her. I remained with her about half an hour, when all vaginal hemorrhage ceased, and nearly colorless urine was freely flowing through the catheter. Five grains of opium were administered to procure sleep and to guard against any action of the bowels, which I neglected to mention had been evacuated by sulphate of magnesia the day before the operation.

From this time forward not an untoward sympton occurred; the urine continued to flow freely through the catheter, which was cleansed and replaced every four or five hours (not one drop flowing per vaginam), and my patient kept her position with a spirit of determination I have rarely seen equalled. On the fourth day the catheter accidentally dropped out, and it was two hours before Dr. Grall (who kindly assisted me throughout) reached her: on replacing it, however, he found that two or three ounces of clear urine had flowed, and there had been no leakage per vaginam. On the seventh day, all seeming to be well, I removed the sutures and button, and there was revealed a strong and perfect line of union. Until the ninth day she retained the catheter, assuming either side in bed, and things continued well. On the ninth day I tried the removal of the catheter, and she was allowed to be without it two hours, when several ounces of urine were drawn off. On the tenth day the catheter was removed again, and she was now directed to pass the water *per vias naturales*, if she felt the desire. In two hours she passed it naturally, and from that time until the day of her discharge from Dr. Beard's Infirmary, where she was operated on, she continued to pass it every two or three hours without trouble. At night she would be aroused by the desire to urinate about four or five times. On the day of her discharge, February 5th, she said she was rapidly becoming more comfortable in this respect. I now gave her back to her husband, with directions for her management; for a month or two, and never have shaken the hand of a human being apparently more happy. Her coming and her going are two pictures, the better to be appreciated because of their extreme diversity. One was misery, the other happiness—both the gifts of Him who made us, both seemingly necessary in the great plan.

This is the third sucessful operation for vesico-vaginal fistula performed by myself, and the fourth in this city, Dr. Shuppert having succeeded after I cured my first case. I have been particular in giving the name and address of this patient, because I have heard that even more than doubts have been freely expressed, in certain quarters, as to the accuracy of my reports. The illiberal spirit which gives rise to such expressions is the crying shame of our profession, and only flourishes where ambition is enslaved by ignorance or superannuation. I claim no credit for these successful operations beyond what is due for having rescued New Orleans from the odium of having hitherto to send such cases away *from* her surgeons. No doubt there are others here who will now be aroused to efforts to do even more good than I have done, and perhaps they will receive showers of applause for every sneer that has been cast on me. Mine will be the pleasure, however, of having stimulated my brethren to do what it has heretofore been thought "all the men in the world" could not do. If thus, indirectly, I cause all these cases in our city (many of whom have, under the fiat of professional reputation, been miserable sufferers for years on years) to be restored to health and happiness, I shall be amply repaid. There can be no more just ambition than to excel in the practice of the great Healing Art, and although our successful efforts may excite the envy of the weak, no man dares to say we are wrong-doers.

ON THE DISINFECTING AND DEODORIZING PROPERTIES OF CHROMIC ACID, AND ON THE ACTION OF DISINFECTANTS.

By I. L. Crawcour, M. D., Professor of Chemistry and Medical Jurisprudence in the New Orleans School of Medicine, etc., etc.

The use of chromic acid as a caustic has long been known to the profession, and in a former number of this journal, I cited some cases of its efficacy in the treatment of warts, in my own practice. It acts by imparting its oxygen to the tissue, and itself becoming converted into the sesquioxide of chrome. Now, oxygen, in the nascent state, is in that peculiar allotropic form, denominated azone, in which condition it evinces powerful combining affinities, and exercises most potent deodorizing and disinfecting powers. It disinfects by burning up or oxidizing odorous particles, whether of organic or inorganic nature. Taking this into consideration, it struck me that chromic acid ought to deodorize, and that if it deodorized at all, that this effect was due not to any action peculiar to itself, but was in fact the result of the generation of ozone. In order to test its deodorizing properties, I added a solution of chromic acid to some decomposing urine: all odor instantly ceased.

I tested it in other ways, with the same result, and find that it even materially modifies the odor of musk. The question now was to determine, whether ozone was generated or not. I placed at the bottom of a tall cylindrical glass jar, a few drops of a saturated solution of chromic acid, containing some crystals of the acid, and after waiting a few seconds, suspended in the upper part of the jar a strip of starched paper moistened with a solution of iodide of potassium. The paper almost immediately changed colors, becoming first of a brown, subsequently of a blue hue, from the separation of iodine in the free state, and its combination with starch. Here, therefore, was evidence of the presence of ozone, and my hypothesis was converted into a fact. In order to test it more fully, however, and to avoid, as far as possible, the accidental presence of free iodine, I rendered a solution of iodide of potassium very alkaline by caustic potash, and again moistened starched paper with this solution and placed it in the jar. The presence of ozone was again distinctly marked. A third test was made by pouring a few drops of this alkaline solution of iodide of potassium into a watch glass, and inverting this on the top of the jar. In a few seconds the liquid became of a brown color, from the separation of free iodine, which struck an intense blue when the solution of starch was added to it. Although I have not tried the experiment, I have no doubt that the permanganate of potash also evolves ozone, and that the action of all the chemical disinfectants, which act by oxidizing, is due to the production of this element. This fact, therefore, reveals to us a most easy and simple method of disinfecting hospitals, dissecting rooms, etc., and of removing all mal-odors. The chromic acid is preferable to the permanganate of potash, which has been used for this purpose, on the score of cheapness and by the ease with which it may be procured. If we add sulphuric acid to a saturated solution of bichromate of potash, crystals of carbonic acid instantly precipitate, which only require to be freed from their supernatant liquid, and dried on a brick or tile to be fit for use. The contact of organic substances must be carefully avoided, as they instantly decompose the acid. For purifying the air of rooms, a tolerably strong solution of the acid should be placed in shallow vessels and scattered about in different corners. The action of the acid continues, until the whole is converted into oxide of chrome, which may be known by the solution losing its red and becoming changed to a brown or greenish hue. As a dressing to foul smelling and badly conditioned ulcers, I have found it invaluable, instantly arresting odor, diminishing secretion and promoting cicatrization. As an injection in cancer of the womb, it may also be used with advantage, not perhaps producing any effect upon the disease, but materially conducing to the comfort of the patient by destroying the abominable fœtor accompanying this malady. It may also be used as a wash in gangrene, and, in fact, in all cases where our object is to destroy bad odors. Its property of deodorizing once being known, the practitioner will vary its application according to the cases in which he may find it useful. The strength of a solution for injection or for external application should not exceed one grain to the ounce, and it may be used even weaker than this with advantage. I have no experience of its internal use, although, probably, it may be employed in many maladies, but it must be borne in mind, that even in small doses it acts as an energetic poison.

HYDRAULIC RESEARCHES ON THE CIRCULATION OF THE BLOOD.

By J. Marey, D. M. P., Interne à l'hopital de Cochin, translated from the French (Annales des Sciences Naturelles, tomes 8 et 9, fourth series). by F. J. B. Romer, M. D., Mobile, Ala.

PART FIRST.

Influence of the elasticity of tubes on the course of liquids within them, (viewed with reference to the quantity of flowing liquid).

Up to this day, all researches on this subject are due to physicians, and were intended to throw light on the physiology of the circulation. Elasticity is, in fact, well developed in the arterial system; hence, since J. Hunter, at least, it has ceased to be contested, as much cannot be said on its influence over the flow of the blood.

Bichat denies any effect to arterial elasticity towards aiding the propulsion of the blood. Prochaska, on the other hand, considers it as an additional force to assist the action of the heart in the intervals of its systoles. M. Berard defines the elastic contraction of arteries *a borrowed force* (*force emprenutée*), to continue the flow of blood during the interval of two cardiac systoles. M. Poisenille, in his experimental researches on the flowing of liquids through tubes, has found that, diameter and length being equal, a liquid flowing through an elastic tube, is in similar condition as when flowing through one with inert parieties. M. Maissiot (*thése de concours,* 1839,) declares all researches up to this day insufficient, as to the effects due to the elasticity of tubes on the liquids flowing within them. "I own," says he, "their pliancy permits them to straighten the too sudden curves, which impede the course;[*] besides, these tubes dilating, by the pressure of the liquid, offer less friction, owing to the increase of their caliber. But then, again, these motions which take place in the tubes consume force; the elasticity of arteries has, therefore, its advantages as well as inconveniences." The author just quoted supposes, however, that the elasticity of the arteries is rather favorable to the flow of the blood.

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[*] Encoulement might be rendered "flowing" instead of "course."

Such, then, is the knowledge actually possessed on the influence due to the elasticity of arteries in reference to the quantity of blood which these vessels allow to pass through them; but, to the present time all experiments were made *under the influence of constant pressures* as the cause of the propulsion of the blood—a condition which does not exist in these vessels, as the blood is propelled by the heart in an interrupted manner.

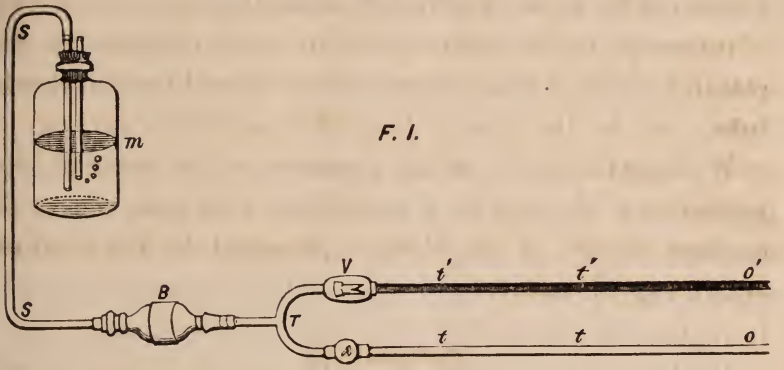
EXPERIMENTS.

The question resolves itself, then, into instituting experiments, in which we can compare the flowing of liquids in two tubes, equal in length and diameter—one being inert, the other elastic; and to note also the quantity of liquid furnished by these tubes under a constant pressure, and under the influence of intermittent pulsations.

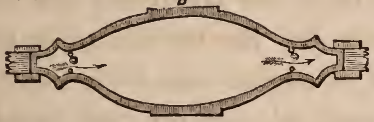
The following is a description of the apparatus I have employed:

A Syphon *S*, dipping into a Mariotte base *M*, brings the liquid always with an equal pressure into the apparatus, composed of a gum-elastic ball *B*, provided with two small valves, opening in the course of the current, fig. 2. Every one understands the action of these balls, employed in some cases as forcing pumps. This ball offers no opposition to a regular flow, when not compressed, and permits the passage of the liquid with perfect uniformity; it allows us also, when we so will it, to transform this regular motion into a series of successive impulsions; to do which we have only to compress the ball at successive intervals. The orifice of egress of the ball is continued to a bifurcated tube *T*, each branch opening into a long tube—one being elastic *t'*, the other inert *t*.‡

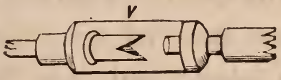
F. 1.



F. 2.



F. 3.



Thus, the two tubes, inert and elastic, are brought under precisely the same conditions, and it is easy to appreciate the part due to elasticity. Finally, at the orifices *o'* and *o* bases are placed to measure the quantity of liquid expended by each during a given time.

The apparatus being now known, the following were the experiments I instituted:

The flowing of the liquid established, I measured the quantity of fluid furnished by each tube under the influence of the pressure derived from the elevated receiver.

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‡As the elastic tube had a tendency on contracting to regurgitute the fluid into the glass tube, I adapted, at its union with the branch of tube *T*, a small valve, (en auche de basson,) in shape like the reed of certain wind instruments—basson or clarionet, for instance. This at once prevented all reflex action, fig. 3.

The amount, as had been observed by all experimentors, was equal in each. The same result did not, however, follow when I induced an intermittent action in the India-rubber ball. By measuring in this experiment the quantity of liquid furnished by each tube, an enormous difference was found *to the advantage of the elastic tube.*

On analyzing the phenomenon, it is easy to perceive the reason for this greater expenditure of liquid by the elastic tube.

We have the means, in this apparatus, to compute, for any instant, the quantity of liquid which enters the tubes ; it consists simply in measuring the quantity of air which enters into Mariotte's base—this air being precisely destined to replace the liquid discharged through the syphon.

If, then, closing the elastic tube, we commence our experiment by permitting the flow of the liquid through the inert tube only, we soon perceive air bubbles to enter Mariotte's base, one by one, at regular intervals (say a second), and this continued until we stop the flow, when the bubbles cease suddenly to appear.

If now we reverse the experiment, by closing the inert tube, and allow the flow of the liquid through the elastic tube only, we immediately observe a series of crowded air bubbles enter the base, affording evidence that the syphon is pouring a larger quantity of liquid into the elastic tube ; after a while, the air bubbles become less and less frequent, and succeed each other at intervals of about a second, until we stop the flowing. It is hence evident that the elastic tube has received, beyond the inert, all that quantity of liquid corresponding to the series of initial air bubbles which entered into Mariotte's base ; if we suppress the afflux of liquid, and wait an instant, to give time for the contraction of the elastic tube, and the expulsion of the liquid which it contained during its distension, it will be seen that the elastic tube has poured out a greater quantity than the inert one. In an intermittent flow, each afflux of liquid is accompanied by the entrance of these initial air bubbles, and consequently the inequality in amount of the flowing liquid is considerable.

An inert tube offers a much greater resistance to the afflux of a liquid than one that is elastic, for the liquid must overcome every kind of friction in the first, while the impulsion lasts, and as friction in a moving fluid is in a direct ratio to the swiftness of the current, it is clear, that in this case the friction must present a very great resistance; the more so, if the impulsion be somewhat sudden (brusque.)

In the elastic tube, on the contrary, the liquid has not to overcome all the resistance from friction during the impulsion; it has a further resource for gaining time, in dilating the tube, which, in its turn, recovering its natural state during the interval of two waves, expels the liquid it had received, and becomes again apt to dilate. This advantage in the elastic tube existing only where the flow is interrupted, we perceive how former experimentors have failed, because an essential condition in their experiments was that of a constant pressure.

APPLICATIONS.

From what has just now been said of the effects resulting from the elasticity of tubes, on the quantity of fluid furnished, we may conclude. that *the elasticity of arteries is a property favoring the flow of blood in its vessels.* Again, as the heart finds less resistance to empty itself into the arteries, on account of their elasticity, so also, in the ossification of arteries, a state which is attended with a loss, more or less great, of their elasticity, the heart encounters a *real resistance* towards the accomplishment of its ventricular systole, and, in virtue of a well known pathological law, is in the same condition of hypertrophy as when the aortic orifice is narrowed. *Thus, arterial ossification must bring about hypertrophy of the left ventricle of the heart.* The frequency of hypertrophy in aged persons is well known, and in them we ordinarily observe ossified arteries.

Many authors have pointed out the coincidence which exists between arterial lesion and hypertrophy of the heart, and have believed in a relation of cause and effect between these two affections. M. Andral (Clin. Med., vol. 1, p. 62), says: "that the frequent coincidence of various aortic alterations with hypertrophy of the heart seems to show that one contributes to the production of the other." From this phrase, it appears the author hesitates to which of these two affections to ascribe the precedence.

I have searched the *Bulletins de la Société Anatomique;* what follows is an abstract result from a tolerable number of observations.

In the article on the ossification of arteries, ten cases only are given, in which the state of the heart is mentioned in these cases:

Once only it is expressly stated, that the aorta was ossified, the left ventricle hypertrophied, and the orifices healthy.

In seven cases the aorta was found ossified, and the left ventricle hypertrophied; the state of the orifices not being mentioned. (These cases have appeared to me not to be deprived of a certain meaning, in my point of view, for the influence of lesions of the orifices is well enough known to be always sought for, and as no mention is made in these cases, the probability is that they did not exist.)

Finally, there was twice slight ossification of the arteries, and no hypertrophy of the heart. (These two cases, far from being opposed to my observations, do rather strengthen them; in fact, since it is by the loss of elasticity that aortic ossification acts in the production of hypertrophy of the heart, it is plain that very slight and scattered ossifications cannot sufficiently diminish the arterial elasticity, so that hypertrophy should follow.)

In the article on hypertrophy of the heart, of forty-one observations, there were seventeen in which lesions of the orifices existed (almost always an aortic narrowing).

These cases must be struck from the list, since the lesion of the heart might have produced hypertrophy.

Of the twenty-four remaining observations, nine times it is explicitly said, that there existed hypertrophy of the left ventricle, ossification of the aorta and integrity of the orifices. Nine times, also, there existed hypertrophy of the left ventricle, and ossification of the aorta, without any mention being made of the orifices (the same reason advanced above, leads us to the supposition that these orifices were healthy.)

Six times there was hypertrophy of the heart (left ventricle), orifices healthy, no mention being made of the aorta. (I believe these observations, though incomplete, ought not for that reason to be altogether neglected, for they refer to aged subjects, which renders it probable that arterial ossification existed.)

CONCLUSIONS.

From the observations just cited, we may conclude, that in ten cases the relation between hypertrophy of the heart and aortic ossification is evident, for other causes of hypertrophy were wanting. If the other observations are not eliminated, because lacking sufficient details to justify my view, they yet furnish all a certain degree of probability in favor of the influence of ossification of arteries, or hypertrophy of the heart; at least, none of these observations contradict this influence.

Among the specimens presented to the *Société Anatomique*, offering a hypertrophy of the left ventricle, with aortic ossifications and without alteration of the orifices, was one shown by M. Herpin (tome XII., p. 49), which the author has accompanied with his reflections; in these, he says: "That in the aged, whose aorta is ossified, he *always* has seen the left ventricle hypertrophied, without the state of the orifices being able to explain this affection of the heart." He thence concludes, that a relation of cause and effect does exist between these two affections, ossification bringing on hypertrophy, because arterial elasticity, the cause of the impulsion of the heart, being suppressed, the heart's action must supply its place by virtue of a mutual *solidarity* between the various parts of the arterial system.

It appears to me, that an interpretation of the influence of lesions in the arterial system, on the production of hypertrophy, can be explained more satisfactorily, by recollecting *the really increased resistance to the systolic action of the heart*, which these lesions produce. Such an explanation is more consonant with received opinions, as immediate cause of hypertrophy, than the tenet of an undefined solidarity between the various parts of the arterial system. I am, however, happy to coincide with M. Herpin as to the fact, and to have been led by purely physical deductions to an identical result, with an observer who reached it without any preconceived opinion.

(To be continued.)

SPECIAL SELECTIONS.

HORACE GREEN AND THE NEW YORK ACADEMY OF MEDICINE.

The Academy met on Wednesday evening, January 19, in the University; and we do not remember ever having seeen a larger attendance of Fellows: The Profession was out in full force.

Dr. John Batchelder, President, in the chair.

The first business in order was the election of Vice Presidents, which had not been completed at the previous meeting. The following is a full list of the recently elected officers of the Academy:

President—Dr. John Watson.

Vice Presidents—Drs. S. C. Foster, Joel Foster, and Gurdon Buck.

Recording Secretary—Dr. T. Gaillard Thomas.

Corresponding Secretary—Dr. J. W. Green.

Treasurer—Dr. J. O. Pond.

The President, Dr. Batchelder, in vacating his seat of office, which he had occupied with so much ability during the past year, delivered a short valedictory, in which he took occasion to thank the Academy for their kindness, and made a brief review of what had been accomplished during his presidency; his closing remarks were full of feeling, and were received with general acclamation. He then surrendered his seat, with some appropriate remarks, to the newly elected President, Dr. John Watson, who, on being inducted to his place by Dr. Kissam, made an interesting address, in which he availed himself of the occasion to take a prospective view of the Academy, speaking of its importance and of the high appreciation in which it was held by the public authorities. His remarks with regard to the sanitary regulations of the city, and the necessity of having a competent health officer at Staten Island, one who should be more familiar with disease than politics, were received with great favor.

The next business in order was to hear the report of the post-mortem examination of the late Mr. S. S. Whitney, by Drs. Mott and Beales. Before the report was read, the President suggested, in order that all the facts of this case might be fresh before the minds of the Academy, that Dr. Green be requested to furnish his statement made at the previous meeting.

STATEMENT BY DR. GREEN.

On the 25th of October, 1858, Mr. S. S. Whitney called on me, and requested to place himself under my care, for medical treatment. His health, he stated, had been bad during several years, and for a twelvemonth past he had more or less cough, which cough had increased considerably of late. It was quite severe by spells, he said, and was attended with slight hæmorrhage, which, *he believed*, came from his throat. His face was pale and thin, and his general appearance was indicative of a phthisical condition of the system. I examined his chest by auscultation, in the presence of Dr. Richards, who, as is usual in the cases I examine, made a note, at the time, of the physical signs observed. I take from this record: "Chest thin; a little depression is observed on the left thoracic wall, with less expansion on this side; percussion gives a flat sound over all the upper portion of the left lung; slightly dull on the right side." On applying the ear to the chest, a distinct *humid râle* or "*click*" was heard below the left clavicle, in both inspiration and expiration; which, when accompanying the above signs, is positively indicative, in my experience, of the presence of tubercular softening. His throat appeared granulated and inflamed; the left tonsil was slightly enlarged and ulcerated; the epiglottis was thickened, and its border whitened with a line of erosions.

Treatment.—The enlarged and ulcerated portion of the left tonsil was removed, the pharynx, the subtonsilary fossæ and the border of the eroded epiglottis were cauterized. A drachm of the following alterative mixture was advised night and morning.

℞. Iodid. potassi, two drachms; proto-iodid. hydrarg., two grains; tinct. rhei, one ounce; syrup sarzae comp., three ounces.

This alterative was continued by Mr. W. during the three following weeks.

Oct. 26—Applications of a solution of nitrate of silver were again made to the fossæ, epiglottis, and into the glottis.

Oct. 27.—The same treatment was continued. After this I saw nothing more of Mr. Whitney until the 9th of November, when he returned and requested to have the treatment continued. At this visit, and again on the 18th, cauterizations of the glottis and larynx were employed. I now spoke to him of the necessity of giving more attention to his case, if he expected to be benefitted by the treatment. He named some cause for his long absence, and promised to be regular in his calls thereafter. The soreness of his throat had disappeared and his cough was less for a time, but latterly it had increased again. He expressed much anxiety about his lungs, and at this visit it was proposed to employ the tube and injections into the left bronchus, as soon as the parts were prepared for this operation. For this purpose the topical applications were continued to the opening of the glottis, and into the larynx. It was, I believe, at a subsequent visit on the 20th, that I made another careful examination of his lungs. Unequivocal signs of a cavity in the superior portion of the left lung were now observed; for in addition to humid râles in this location, the respiratory sound was distinctly cavernous.

A prescription composed ot phosphate of manganes, tinct. cinchona, syrup sarza, mucilage, etc., was ordered with directions, that a drachm should be taken twice daily.

Dec. 4.—Another interruption of two weeks occured, when Mr. W. returned and the sponge probang was again passsed into the larynx.

Dec. 6.—It had been my intention for several weeks to employ tubage of the larynx in this case, as soon as the normal sensibility at the opening of the glottis was sufficiently overcome to allow the introduction of the instrument. But the patient's visits had occurred at such long intervals, that I found the parts were not properly prepared. But as

Mr. W. had several times expressed a desire to have it used, I resolved on the 6th to make the attempt. The tube was, therefore, introduced, and a drachm of the nitrate of silver solution, of the strength of fifteen grains to the ounce, was injected into the left bronchus. No irritation whatever followed this operation. The patient's next call was on the 9th of December. At this visit he expressed much satisfaction with the effects of the injection, stating that his cough and expectoration were both diminished, and he desired that the injection should be again employed, but for reasons hereafter named, only the glottis and larynx were cauterized as in previous operations, and the patient engaged to call in two days and have the tubage repeated; but he failed to meet this engagement, and did not return until the 14th—five days afterwards. This was the last visit Mr. W. made at my office; and as most unjust and utterly unfounded reports have been made and widely circulated with regard to the character of this operation and its effects, I shall describe briefly, but minutely and exactly, the steps of the operation. After much experience in catheterism of the larynx, it has been fully ascertained that this operation can be performed with greater certainty if employed soon, or within one or two days after the opening of the glottis has been cauterized. Hence these applications are usually made once or twice between each operation of tubage.

When Mr. W. came to my office on the 14th, Dr. M. E. Foy, a member of this Academy, was present. He had expressed a desire to see the operation of tubage employed on some of my patients, and when Mr. W. came and took his seat, I remarked to Dr. Foy that it had been my intention to employ the tube for him on that day; but as he had not had an application to the glottic opening for five or six days, I was fearful, for that reason, of not succeeding, and as I had other patients on whom the tube operation was practised, I should not use it in Mr. W.'s case, but employ the sponge probang. This instrument was employed, but the tube was not used that day, on Mr. Whitney. It was never used but once in his case, and that was on the 6th of December, eight days before this last operation. The same probang, the identical instrument, which, on some ten different occasions previously, had been passed into the glottis and larynx of the patient, was employed, and in precisely the same way, except when the sponge reached the glottic opening, the patient partially closed the throat (a thing occurring every day with nervous or sensative patients, and as every operator knows, without the occurrence of any harm to the patient), by which the progress of the instrument was suddenly arrested, so that it did not enter the windpipe at all. It was at once removed, no more force having been used than that which is constantly employed every day in operations on the air passages. The operation was not renewed, and the patient, after talking a while with Dr. Foy and myself, and remarking that "the operation hurt him more," or that "he felt it more than usual," (which arose, as I said to him, from the sudden arrestment of the instrument,) he left with the arrangement that he should return the next day and have the tube employed. These are the precise steps, and the particulars of the last operation. Dr. Foy stood directly by the side of Mr. W., and saw every part of the operation, and can testify, I doubt not, to the entire correctness of this statement.

On the 27th of December, as soon as rumor brought to me the report, said to have come from the patient and his physician or friends, "that the tube was used and had been thrust through the windpipe," I addressed a note to Dr. Foy, the purport of which will be sufficiently apparent from his reply, which was as follows:

LETTER OF DR. FOY.

No. 106 *West Twenty-Fifth Street,*
NEW YORK, Dec. 21, 1858.

DR. HORACE GREEN —Dear Sir: In reply to your note of this date, I was present when you operated on Mr. Whitney in your office on the 14th inst. You directed my attention to Mr. Whitney's case.

You passed a sponge probang, saturated with solution of nitrate of silver, into the glottis. The operation was followed by very trifling irritation, not more than I have experienced from having my uvula touched with nitrate of silver.

We had, at the time, a conversation about probangs. You exhibited to me some brought you by your patients, remarking that the sponge was too large and the curve too great. You showed me that the sponge used on Mr. Whitney was capable of containing half a drachm of the solution.

Your office lad told me that, if I required probangs, he could supply me with the same sort you generally use. I mention these trifling particulars that you may see how vididly the operation is impressed on my mind.

You mentioned Mr. Whitney by name, and the date is fixed on my mind beyond a shadow of doubt.

I am, dear sir, yours obediently,

MICHAEL EYRE FOY, Surgeon.

P. S.—I desire further to state, that nothing but the probang was used.

You did not use a tube. In fact, I never saw a tube used by you or others.

M. E. FOY.

It is reported that the patient returned to his house, complaining of his throat. That night he was taken worse, and died in one week from the day in which he last visited me at my office. Of the cause of his death, it remains for the profession of my country to say, after they shall have learned from his attending physicians the symptoms present during his life, and the appearances found at the post-mortem, as observed by these gentlemen, for at this examination neither myself nor any of my friends were present.

In connection with cases of this nature, Mr. President, are involved questions of great interest to practical medicine. Of the employment of topical medication, or the direct application of nitrate of silver, and other medicinal agents, to the mucous membranes of the air passages, a practice, which, at the present day, is being everywhere more or less employed; if, I say, it be fraught with danger to the patient, or if there exist any peculiar conditions of the human system, general or local, in which topical applications, such as I have described as having been employed in Mr. W.'s case, are likely to be followed with dangerous or fatal symptoms, then, if possible, let these facts be ascertained. For myself, I shrink from no inquiry in which the interests of practical medicine may be advanced. Having performed the same operation as that which was practised upon Mr. Whitney on the 14th of last December, over 100,000 times since 1845 (as can be shown by my books), without the occurrence of a single untoward accident, I am quite desirous to know whether the fatal results which have been attributed to it, as the cause, have in reality followed this particular operation.

Struggling against some disadvantages, of which the Fellows of this Academy are not wholly ignorant, I have labored more than twenty years to add something to our curative means, in the more successful treatment of a disease which, doubly decimating in its fatality, is still the opprobrium of our profession; and to this same work, whatever obstacles may arise, I am determined to give the remaining years of my professional life.

STATEMENT OF DR. BEALES.

After some preliminary remarks, in which he deprecated any hostile feelings towards Dr. Green, personally, Dr. Beales made the following statement:

December 14, 1858.—About one in the afternoon I was called to see Samuel S. Whitney. I found him surrounded by several members of his family, in a state of most intense excitement, suffering and terror; his countenance was pale and haggard, and had all the appearance of a man whose nervous system had received a severe shock; his breathing was occasionally irregular and almost spasmodic, coughing almost incessantly, and speaking with great difficulty and pain, in a hoarse, unnatural tone of voice; his skin was cold and clammy, and covered with perspiration; the pulse was extremely frequent, feeble, irregular and intermittent; he was excessively restless, not remaining in the same place more than a few minutes at a time, complaining of intense pain in the region of the larynx; shooting through to the cervical vertebræ, and down the course of the trachea to the chest; he kept grasping the larynx, and reiterating every few minutes that he was murdered. I endeavored to calm the excitement of the patient, and tried to examine his fauces and throat, which appeared to be in a state of great inflammation; I discovered no lesion, as, in fact, on account of the pain and terror of the patient, the examination was necessarily very imperfect, as he would scarcely allow the spoon to touch his tongue, and I concluded, therefore, to defer the examination till he should become more quiet; I gradually ascertained, partly from the family and partly from himself, that he had been several times to see Dr. Green; on the first occasion his tonsil had been amputated; at a subsequent occasion, ten or twelve days previously, (the exact dates were not told to the relator), a hollow tube had been passed into his lungs, and about a teaspoonful of solution of nitrate of silver had been injected into them by touching a spring at the top of the tube; whether this was done more than once the relator does not recollect to have been stated; on the 14th of December, Mr. Whitney breakfasted with his family, appearing to be in his usual health; he afterward went to Dr. Green's office; the Doctor passed an instrument into his throat, and, finding some obstruction, he pushed the instrument with some force; he (Mr. W.) felt something give way; immediately experienced severe pain about the top of the windpipe, and told the Doctor he had hurt him; he turned home, informed the family of what had occurred, and I was called, as before stated; 1 P. M., I saw him with the symptoms and in the state previously described; it was evident that, under these circumstances, the only indications that could be followed were to rally the patient's strength, to produce some reaction, and to moderate the local irritation in the fauces; to this effect

I ordered him to be immediately put in bed, bottles of hot water to the feet, with sinapisms to the extremities and chest, and flax-seed poultice to the throat; a teaspoonful of chloric ether or volatile tincture of valerian in water occasionally, till reaction should be established, and a mixture composed as follows: ol. amygdal. dulcis, syrup papaver. albi, muc. gum acaciæ, liquor potassæ. A dessert spoonful to be slowly swallowed occasionally. For nourishment he was allowed arrowroot and flax-seed tea.

Dec. 14, 7, P. M.—Is suffering severe pain, described to be in the larynx, down the course of the trachea to the chest, and round to the cervical vertebræ; pulse 112, feeble and irregular; still exceedingly restless; other symptoms are about the same; insisted on my remaining with him all night. Ordered a mixture composed of vin. antimonial sulut. sulph. morphiæ, mucil. gummi, aquæ distillat. A dessert spoonful every four hours; to inhale the vapor of infusion of flax-seed and poppy heads.

Dec. 15, 3, A. M.—They called me as they observed the face to be swelling. I found extensive emphysema all round the neck, and partially in the face, rather more noticeable on the left side; he had continued exceedingly restless, scarcely dozing for a few minutes, breathing very irregular; pulse 106; urine scanty, very high colored and turbid. Continue the same remedies and nourishment.

1, P. M.—Heat of surface more natural; scarcely any pain in the chest, emphysema very much increased round the throat and face, and extending down the chest; has not slept; has taken scarcely any nourishment on account of the pain in swallowing; could not continue the inhalations, although they rather relieved him temporarily. Anodyne liniment to be applied to throat and chest.

8, P. M.—Dr. Valentine Mott saw him, in consultation with me; is decidedly worse; emphysema very much increased; neck and chest enormously swollen; it has extended all over the chest, but lower down on the right side; breathing somewhat labored; pulse very feeble, irregular, and 112; skin is again covered with clammy perspiration, and about the neck and chest is of a purplish erysipelatous appearance; does not particularly complain of pain, except on talking or swallowing. Dr. Mott gave a very unfavorable prognosis. Continue anodyne, and take alternately a teaspoonful of ammoniated tincture of valerian.

Dec. 16, 6, A. M.—Upon the whole has passed a more comfortable night; symptoms are all a shade better; the emphysema rather less in the face, but the throat and chest are enormous—the mammæ resembling those of a stout nursing woman. Continue wine whey.

1, P. M.—With Dr. Mott. The emphysema extends to Poupart's ligament on the right side; but only as low as the umbilicus on the left; cough less frequent, except when he swallows; pulse 108 and rather firmer. Same remedies and nourishment.

9, P. M.—With Dr. Mott. Is not so well; emphysematous swelling increased; cannot open his eye till the air is carefully pressed out of the lids; chest and abdomen still more swollen; pulse more feeble, 122, although he has taken nourishment more freely. Same remedies.

Dec. 17, 6, A. M.—Has slept more during the night—sometimes for nearly an hour at a time; has taken more nourishment, but there begins to be considerable mucous secretion, which interrupts his respiration, and gives him great trouble to expectorate; pulse very irregular and feeble;

the slightest movement increases its frequency; it averages about 108.

1, P. M.—With Dr. Mott. There is no observable change in the symptoms, although he says he feels more comfortable; several attempts have been made from time to time to examine the fauces and adjacent parts, but the excessive swelling rendered them useless.

9, P. M.—With Dr. Mott. There is again a slight lull in the symptoms, excepting the pulse, which is extremely irregular at 108; same remedies.

Dec. 18, 6, A. M.—Has passed the best night since the attack; there is a decided improvement in all his symptoms; emphysema slightly subsiding; pulse 90; is rather more hopeful.

1, P. M.—With Dr. Mott. We consider him decidedly improving; all the symptoms are milder; he is slightly flighty from the effects of the anodyne.

9, A. M.—Is not so well again, without any other apparent cause than he would get up during my absence, and sit for about an hour in a chair; the pulse is more frequent and irregular; the difficulty of swallowing is also evidently increasing—the attempt to do so bringing on coughing, partial strangulation, and some regurgitation of the fluids.

Dec. 19, 6, A. M.—Passed a very bad night, principally owing to the great increase of the mucous secretion, that keeps him almost constantly coughing and expectorating, which he does with great difficulty and suffering; the pulse very frequent, feeble, and excessively irregular; to take half the dose of the anodyne at a time, and four grs. of carb. ammonia in a teaspoonful of emuls. of almonds, every four hours, in place of the ammoniated tincture of valerian; although it is certain that there is some serious lesion in the vicinity of the glottis, yet it is utterly impossible to ascertain the state of the parts; the emphysema has rather subsided about the upper part of the face, so that he can partially open his eyes.

1, P. M.—With Dr. Mott—Has slightly rallied, but the mucous secretion is increasing; the cough more frequent and difficulty of swallowing greater; bowels have not acted for three days; continue remedies; injection; give as much nourishment as possible.

9, P. M.—All his symptoms much worse; pulse more feeble, 120; difficulty of swallowing, with the coughing and strangulation very much increased, consequently has not been able to take so much nourishment.

Dec. 20, 6, A. M.—Has passed a very bad night; breathing labored, and all the difficulties of swallowing etc., increasing; the emphysema rapidly disappearing from the face and throat; abdomen distended and tympanitic; injection did not operate; a tablespoonful of castor oil.

1, P. M.—With Dr. Mott—All the symptoms gradually becoming more serious.

10, P. M.—Is very much worse in every respect; respiration excessively labored; the slightest attempt to doze threatens suffocation from the accumulation of mucus; can with difficulty be induced to swallow; the oil operated twice, and he was excessively exhausted; pulse extremely feeble and irregular, 126; he is evidently sinking.

Dec. 21, 7, A. M.—During the night he became rapidly worse; did not swallow after 2, P. M., and died rather suddenly at 8, A. M., partly from exhaustion and partly by asphyxia.

Note.—A number of trifling circumstances, such as the varying appearance of the urine, the continual slight changes in the symptoms, etc., as not throwing additional light on the case, have been omitted, in order not to make the statement too tedious.

J. C. Beales, M. D.

As far as relates to this case, from the time I was called in, it is a faithful narrative.

Valentine Mott, M. D.

I certify that this is a faithful copy of the original.

J. C. Beales, M. D.

New York, Jan. 18, 1859.

POST-MORTEM OF SAMUEL S. WHITNEY.

New York, Dec. 22, 1858.

Thirty hours after death, nothing peculiar in the appearance of the body. Rigor mortis quite moderate.

On making an incision from under the chin in the mesial line to the sternum, it was remarked that the anterior projection of the thyroid cartilage was more than ordinary. Directly as the knife divided the deep cervical fascia on the left side of the thyroid cartilage, pus issued out; a little further division opened into a cavity, containing pus, about the size of a large hen's egg, and extending a little in front of the pharynx and downward behind and below the thyroid cartilage. At the upper and posterior part of this abscess there was an opening into the pharynx, large enough to admit the end of the forefinger. This abscess was lined by a large quantity of destroyed filamentous tissue, hanging from different parts of it like wetted tow. The entrance into the œsophagus immediately below this was perfectly sound, internally and externally. The larynx was now laid open from behind, and at the first glimpse, a red point about the size and shape of a grain of wheat on the left side, a little below the left chorda vocalis, and running longitudinally, led us to exclaim, there is the point of laceration of the mucous membrane, by which the air has escaped into the cellular tissue to constitute the emphysema. On close inspection, and wiping the part with a sponge, no abrasion nor aperture could be discovered. Every other part of the larynx and trachea as far as removed, presented on its internal surface a perfectly normal appearance. Indeed, we all remarked, that we had never seen a larynx and trachea more natural and healthy. We next concluded to have a look at the bronchi and lungs. Perhaps about an inch above the division of the trachea, the most beautiful vermillion redness that we ever saw on a mucous surface commenced and extended into each bronchus, but greatest in the left, and extended down to each lung. Over this peculiar redness there was a cloudy shade, which vanished after a short exposure to the air. On opening the pleura, the upper lobe of the left side, at first glance, seemed covered with white thick pus. But on close examination, it proved to be soft and strumous, like fibrin, and easily rubbed off. This, on the side, and posterior part, connected that lobe in patches to the pleura costalis. These imperfect adhesions were easily broken down with the fingers. The whole of the upper part of this lobe was very red, and very solid—hepatized. Just at the root, or at the commencement of the bronchical ramifications there was an open cavity, about the size of a small black walnut, of a reddish brown color, and irregular villous surface, as though a slough had separated. At the upper and anterior part of this cavity there was a small opening through both pleuræ. This lobe was cut into in different directions, but no tubercles could be found. The lower lobe was perfectly healthy. The redness of the mucous membrane of the right bronchus extended to the lung of that side, but the three lobes were perfectly normal. There were no old adhesions on either side of the cavity of the chest. Some little appearance of the emphysema remained.

Signed, VALENTINE MOTT, M. D.
J. C. BEALES, M. D.
ALEX. B. MOTT, M. D.

Dr. Beales then addressed the Academy as follows:

During the number of years that I have attended Mr. Whitney's family, I have not known Mr. Samuel Whitney to be seriously ill, so as to be confined to his bed; but he has for a long time been subject to various derangements of the digestive organs, such as want of appetite, torpidity of the bowels, deficiency of the bilious secretions, and occasionally a bronchial cough. For these I have frequently prescribed to him; but during the whole or greater part of last year (as I have been informed by the family) he placed himself under the care of a homœopath, so that, with two or three trifling exceptions, I was not called on to prescribe for him until the present occurrence. Toward the end of October, his sister informed me that he was very low-spirited and depressed; as some physician had informed him, his lungs were very much affected. He wanted me, therefore, to examine him, but he did not want me to know that he had consulted any other physician. Sir, I wish to state that I appreciate the stethoscope as highly as most of men; I believe it, as most others do, one of the greatest discoveries in our profession; but I frankly confess that I do not believe in its infallibility, even aided by percussion;

I do not believe that any man can at all times discover one or two, nor even a few tubercles, scattered about the upper lobes of the lungs. I am sure that every man, if he would frankly tell the truth, would admit that he had occasionally been mistaken. For myself, I do not pretend to any extraordinary skill with this instrument; but, independent of my private practice, I have been for fifteen years examiner for various Life Insurance Companies, and therefore I constantly make use of it, and ought to know something about it. Under these circumstances, well knowing the opinion of the other physician, I examined Mr. W. with all the care and accuracy of which I am capable; I declared to him that I could not discover any tubercles in his lungs, and that I did not believe that any existed.

On turning to the report of the post-mortem examination, it will be seen that a "cavity" was found, but not a single tubercle. I will not, of course, assert that such a thing as a tuberculous cavity *never* exists without the presence of other tubercles—I do say that it is a most rare and exceptional circumstance—but I wish to make a few remarks on this "cavity." Was this a *tuberculous* cavity? It neither contained any kind of fluid, nor was it lined with lymph, nor the slightest appearance of false membrane, nor were there any remains of tuberculous deposit, and *I* at least have never seen a *tuberculous* cavity similar to it—in fact, although that word was used in the report as probably most readily occurring, it could scarcely be justly so called; it was rather a shallow depression, or scooping out of the actual apex or superficies of the lung; its surface was not like that of a "*cavity*," but rough and irregular, and had that peculiar appearance that all present remarked, it looked as though a slough had separated. Communicating with it was a perforation in the pleura sufficiently large to admit the little finger of the gentleman who had operated; all other appearances about the lung were of the most recent disease; the hepatization was in its earliest stage, and the adhesions spoken of were so recent that the folds of the pleura were more, properly speaking, *glued* together than adhered. We did not discover the slightest sign of chronic disease in or about the lung; and so striking was this fact, that Dr. Mott told the family, after the post-mortem examination, that we had not seen any disease that *might* not have been produced *within a week*. Dr. Green says that the epiglottis was thickened, and its border whitened with a line of erosions. At the post-mortem, this part was very minutely and carefully examined, and found to be extraordinarily healthy, and free from the slightest vestige of disease. Under all these circumstances, I am forced to believe that Dr. Green erred in his diagnosis, and that these various operations were unnecessary and uncalled for. I do not say that the operation of tubing caused the disease in the lung, because I confess myself ignorant of the effects of nitrate of silver on the substance of the lungs; but for the operation itself, I do not hesitate to express my conviction that it is at all times attended with extreme peril and risk of the patient's life. I have never heard of or seen a single case of phthisis where it has effected a cure, and therefore I believe it to be perfectly unjustifiable. I believe that a slough or eschar was formed at the apex of the lung, involving the pleura, and which, at the time of the unfortunate occurrence, became separated by the violent exertions and spasmodic coughing—the air percolated into the cellular substance, and produced the emphysema which formed so prominent a symptom. I will now leave this part of the case, and go on to that which was, after all, undoubtedly the immediate cause of the death of the patient. I mean the lesion of the pharynx. By referring once more to the post mortem examination, it will be seen that there was a lacerated opening in the pharynx, communicating with the large abscess. I have heard it rumored, that this abscess was chronic; and insinuations have been made against Dr. Mott and myself in regard to it. It appears, by his own statement, that for two months previously to his death, Mr. W. was under the professional care of Dr. Green—for my own part, I solemnly declare, I have never prescribed for, nor heard him complain of his throat. Early in October the Doctor cut out one of the tonsils. Did the chronic abscess then exist? If so, how was it that the Doctor did not discover it? He several times applied the sponge and probang. Did the abscess then exist? On the 8th of December Dr. Green states that he passed the tube down the trachea. This, at all events, whatever we may think of the operation itself, requires a careful observation of the parts; did the abscess then exist and the Doctor not discover it? But, sir, on the very day of the last unfortunate operation, Dr. G. was showing to Dr. Foy how he applied the sponge to the larynx, and showed why it only entered the pharynx—of course, the organs were closely observed—how was it that the Doctor did not diagnose this chronic abscess? Why, sir, the reason that Dr. G. did not see this chronic abscess was because it did not exist. Sir, I do not believe that among all those who are now listening to me, there are two opinions. At all events, to my mind the evidence is irresistible, that in the last unfortunate operation, on the 14th of December, the pharynx was accidentally lacerated by the probang; the first effects, as we have seen, were excessive irritation of the parts, and a severe shock, increased, no doubt, by the nervous temperament of the patient, and his conviction that the injury was fatal. Afterward, doubtless, portions of the various foreign bodies he attempted to swallow, food and medicine, were forced into the wound. After three or four days a sloughy abscess began to be formed, which, gradually increasing in size, formed a mechanical obstruction to swallowing; by pressure on the adjoining parts prevented the epiglottis from properly closing, and produced the strangulation and regurgitation which we have noticed, till at length the unfortanate patient sank from exhaustion and asphyxia. I wish now, sir, with your kind permission, to make a few remarks with respect to the post mortem examination. I perceive that we are censured for not having Dr. Green present. I need not say that, as the case progressed, the excitement and feeling in the family did not diminish. I do not think that on this point I have the right to judge Dr. Green; he, doubtless, did what he thought right in the matter; but had he, by sending inquiries, or showing any sympathy with the misfortune of the family, exhibited a desire to be present, it would have afforded an occasion to Dr. Mott and myself to have introduced him; that he did not so act, was repeatedly remarked by many of the family. Now, under these circumstances, it was no pleasant thing to ask permission of the family, and I frankly allow we did not. I will tell you how the post mortem examination was arranged. I asked Dr. Mott whom he would wish to perform it; he replied, his son, Dr. Alexander; and on the day of that operation I was introduced, and spoke to that gentleman for the first time in my life. I shall merely remark that Dr. Alexander Mott has never till to-night heard me say a word as to my views of the case. I do not know his. We have never interchanged a word on the subject.

Dr. Green said:—I do not rise, Mr. President, to make any speech. So far as I am concerned, I am willing to leave this whole subject to my professional brethren connected with the Academy, and to the profession throughout the whole world. In the first place, however, I may be allowed to say that there are some insinuations to which Dr. Beales has referred, which are improper and groundless. It has been inferred that I have sought to keep this *post mortem* examination from the public. I should have been very glad at any time to have it published, as its publication would have saved a great many persons from having exposed themselves to heavy damages for libel, for it shows that there was no perforation, and no injury done to Mr. Whitney at the time. But that was not my reason for withholding it. I came before you, gentlemen, and stated the case candidly. It was at the urgent request of my friend, Dr. Mott (for I shall so consider him, notwithstanding all this), that nothing should be brought before the public in relation to this, except through the Academy, that I refused to give the *post mortem* over for publication. I have his written request here, and I offer to read it if he will allow me. Since the last meeting of the Academy I have been visited by, I presume, no less than ten editors, desiring me to surrender that *post mortem;* and there are some of the gentlemen here present to whom it was positively refused. I declined, also, to give it at the advice of my friends, and in conformity with my own feelings, and these gentlemen of the press can testify whether I did not so refuse. If I am permitted, I will read from Rokitansky's *Pathological-Anatomy*—an authority on the subject which no one here will question—a description of one variety of tuberculous cavity, which, I think, will hardly be found to concur with the inferences of the gentlemen by whom this *post mortem* examination was made. At page 103 of the Sydenham Society's edition, he says:

"*Infiltrated tubercle*, unlike instertitial tubercle, is actually deposited in the cavities of the air-cells. It arises from a more or less extensive croupous pneumonia, whose products, under the influence of a tuberculous infiltration, become variously discolored, and converted into yellow tubercle, instead of being absorbed or dissolving into pus. Hence tuberculous infiltration presents the form of *hepitization*, induced by a tuberculous product."

And again, at page 112:

"The contents of tuberculous caverns present many differences. Sometimes, and especially when the infiltrated tubercles begin to soften, these caverns contain a yellow and somewhat thickish pus; more frequently, however, they contain a thin, whey-like fluid (tuberculous ichor), in which may be observed numerous greyish and yellowish friable, cheesy, purulent flocculi and particles, whose quantity, however, is not in itself sufficient to explain the profuse expectoration which so often occurs in phthisis. This fluid is often of a greyish red, or reddish brown—(mark the similarity of the phrases here and in the gentleman's report)—or chocolate color, from the admixture of blood; or of an ash or blackish grey color, from the pigment which it takes up during the softening of the tissue. Moreover, the caverns sometimes contain smaller or larger fragments of lung, resembling the parenchyma contained in their walls, and chalky concretions are occasionally found in them."

In the next place, I would say that the inference is left to be made by the members of the Academy that this sloughing was produced by an injection administered on the 6th of December, between which and the date of Mr. Whitney's death (on the 21st, I think,) an interval of fifteen days elapsed. Now, every gentleman of the Academy who understands what they are now doing in France, knows well that during its last five sessions the French Academy has been occupied in discussing this very subject of injection and cauterization in diseases of the air passages, admitting unanimously that this operation is not only performed with safety, but that great beneficial results follow therefrom. And within the last few months, large numbers of young and delicate children—1, 2, 3, 4 and 5 years of age,—have been treated for croup by injection with nitrate of silver into the larynx, by such men as MM. Trousseau, Loiseau, and others. Prof. Bennett, of Edinburgh, in describing his use of the introduction of the tube and injection into the lungs, says:

"My period of attendance on the clinical wards having expired in January, it was not until last May that I had an opportunity of making a series of observations on this subject. I was then fortunately assisted by Prof. Barker, of New York, who showed me the kind of catheter he had seen Dr. Green employ, and demonstrated the manner in which the operation was performed. Without entering into minute particulars, I have only to say that I have confirmed the statements made by Dr. Horace Green. I have introduced the catheter publicly in the clinical wards of the Royal Infirmary, in seven patients. Of these, five were affected with phthisis in various stages; one had chronic laryngitis with bronchitis, and one chronic bronchitis, with severe paroxysms of asthma. In several other cases in which I attempted to pass the tube, it was found to be impossible—in some because the epiglottis could not be fairly exposed, and in others on account of the irritability of the fauces, and too ready irritation of cough from pressure of the spatula.

"My experience of this treatment is as yet too limited to permit my saying anything of its permanent effects. In the case of bronchitis with asthma—a female, aged 24—I have now injected the lungs eleven times, at first throwing in two drachms of a solution of nitrate of silver, of the strength of half a drachm of the crystalized salt to one ounce of distilled water, and latterly I have thrown in half an ounce of a solution of the strength of two scruples to one ounce. She declares that no remedy has had such powerful effect in lessening the cough, diminishing the expectoration, or delaying the asthmatic paroxysms. She breathes and blows through the tube, when inserted four inches below the larynx; and I have been surprised at the circumstance of the injection not being followed by the slightest irritation whatever, but rather by a pleasant feeling of warmth in the chest (some have experienced a sensation of coolness), followed by ease to the cough, and a check, for a time, to all expectoration.

"I think it of importance that these facts should be known to the profession, as a homage justly due to the talents of a distinguished Transatlantic physician, and with the view of recommending a practice which, if judiciously employed, may form a new era in the treatment of pulmonary diseases." (Applause.)

I have only one word more. I never go, unless requested by some one, to see a patient. I did not desire Mr. Whitney to come and see me. He came of his own accord. I treated him legitimately, and, I believe, properly. When he left me and went under the care of another physician, should I lower myself by dogging him, and thus degrade the profession? (Applause.) Never. Had they sent for me, (I having had several cases of retro-pharyngeal abscess, where I have saved the lives of the patients by opening those abscesses,) I would not have hesitated to go. I saved my two or three patients in this city by opening the abscess; they failed to do so. Why should they not come out as magnanimously as Carruthers did, when, having lost two patients from having overlooked a pharyngeal abscess, which was not discovered until after death, he bravely acknowledged it. Dr. Beales has himself described the rage of the family towards me. And how did they meet it? Why was it not lulled at first, as I would have endeavored to do for you, sir, or for any member of this Academy? (Applause.) Why was not this done by the physician in attendance on the family? I merely ask the question. He has declared that if I ventured to come near the house I should, in all possibility, have suffered personal violence. This is one reason, perhaps, why, even if I had been called on, I should not have gone. But I would have gone, nevertheless. To these remarks, Mr. President, I wish to add one other. Having understood that a post-mortem examination was to be made, several of my medical friends called upon me and urged that either I, myself, or my representative, should be present. At length, when the day arrived, Dr. Carnochan, my colleague, said it was injudicious to permit the examination to be made without one of us being there. I deputed him, therefore, to claim of Dr. Mott the privilege of being present. In accordance with this arrangement he drove down in his carriage, but was too late. The examination had already taken place. (Applause.)

Dr. Detmold: I wish this applause to be stopped. I do not think it comes from the members of the Academy.

The President expressed his hope that all such demonstrations would, in future, be abandoned. He called on Dr. Mott to state his views of the case under discussion.

Dr. Mott said: It is not necessary, in my opinion, that I should give any elucidation of this case. I will confine my remarks especially to the *post-mortem*. I take it for granted that Dr. Green and all his friends, and, indeed, every member of this Academy, will do me the justice to state that they believe me. If they do not, I will never show my face here again. What motive could I have had in drawing up this *post-mortem?* It was to arrive at the truth; and my whole object was to state it fairly and impartially. And it is done so. I am willing to answer for it, and I will attest to it at any moment. Some insinuations have been made here (with the newspapers we have nothing to do) that that was a chronic abscess. Mr. President, I have not lived in vain—I have lived long enough to know what an acute and what a chronic abscess is; and I say to this Academy, irrespective of any man, that that was not a chronic abscess, but that it was an acute abscess; and I furthermore say, that any man, knowing the anatomy of the pharynx and the larynx, would say immediately that that abscess could not have been got at by the fauces, so as to have been opened. I know the nature of acute and chronic abscesses about the pharynx, and I know a little, I suppose, about opening them; but I defy any man to say that he could see the situation of that abscess by looking into the mouth. That abscess was situated a little laterally of the left side of the thyroid cartilage, reaching down to where the œsophagus begins. Every body knows that the œsophagus begins lower. In a state of emphysema, who can see far into a patient's throat, when everything is blown up? If I had known there was an abscess there, I should certainly have sought more marked symptoms. I wish it understood, that I state here, in the face of this Academy, and in the face of this community, that that was an acute abscess. There shall be no shuffling about this thing; the truth must be spoken, and, as far as I know it, I will speak it. The condition of that larynx throughout was remarkably normal. There was not an iota about it that was at all unnatural. Let no man reproach us for not being vigilant. I say, anatomically, in defiance of any man, that that abscess could not be reached through the mouth. I know patients can be saved, but this one could not. I defend the *post-mortem*—I defend every part of it; but let no man reproach me for inattention.

The President: Be kind enough to say whether this was to be considered as, in any way, a post-pharyngeal abscess?

Dr. Mott: It was a post-laryngeal—it was hardly a post-pharyngeal. Laterally, it went a little perhaps to the left side of the pharynx.

Dr. Douglas: If this was an acute abscess, and had continued from the first day on which Drs. Mott and Beales saw the patient, why don't we find some mention of it in the history of the case? I should like to hear their diagnosis previous to the *post-mortem*.

Dr. Mott: I drew up that statement, and am answerable for it from beginning to end; and I have nothing to add in connection with it only what I have said in defense of the nature of that abscess. The moment the neck of this gentleman (Whitney) was exposed, and before a cut was made in it, I remarked to my friends, "that is a remarkably large larynx and trachea." I don't know that I ever saw the calibre of a larynx and trachea as large as his was. The abscess was situated as I have described.

Dr. Douglas: There is one point I wish to submit in relation to the *post-mortem*. When a simple incision was made and pus flowed, why should not this have been done before the death of the patient?

Dr. Mott: There was no opportunity to feel for fluctuation. You, as a surgeon (addressing the chair), know very well the condition of an emphysematous patient, and you know that, in such a case, it cannot be discovered. And even if we had discovered the fluctuation, what good would it have done? Could we have cut down into it? The emphysema was so very terrible about the neck and the whole front, that it defied altogether the discovery of the abscess. Good heavens, gentlemen, can you suppose, for one instant, any of you, no matter how good you are, or how young or how old in experience, that I could not detect fluctuation, under ordinary circumstances, as well as other men.

Dr. Peaslee: There is one point to which I wish to call attention. In regard to this abscess, I shall agree with Dr. Mott fully, that it was an acute abscess. It has been assumed, and I think we all admit, that if that abscess could have been opened it would have given a good deal of relief to the patient. Now, in fact, that abscess was opened. It had a hole large enough to allow the introduction of one finger, and, in fact, Dr. Beales said, of a second one. Then there comes up the question, why was there not a free evacution of that abscess? It seems to me that the connection between the lung and the emphysema is very clear. The emphysema came from the lung. That might have been the first, and then came the abscess.

Dr. Reese said he wished that the cause of death, as entered on the certificate, be stated.

The President said he believed the statements as to the *post-mortem* examination had not all been presented. Dr. Alex. Mott was yet to be heard.

Dr. Alex. Mott: This opening was a little to the left side of the pharynx, and the cavity containing pus and destroyed filamentous tissue, extended back from the larynx and downwards toward the trachea on the left side. It was not a post-pharyngeal abscess, and I do not see how it is possible that destroyed filamentous tissue, such as appeared in this abscess, could arise from a chronic or an acute abscess, to the extent that we found it in this abscess. The cavity in the lung did not appear to me like an abscess, or any cavity that I had ever seen from disease of the lungs; that is to say, from tubercles, or any disease of that description. It had a novel appearance entirely. I have seen very many abscesses of the lungs, and I never saw one resembling this cavity.

The President: In what lung was it?

Dr. A. Mott: In the upper lobe of the left lung, near the region of the bronchial ramifications. The facts stated in the *post-mortem* examination are correct in every respect.

Dr. Douglas: I don't exactly understand what Dr. Mott means when speaking of this abscess.

Dr. A. Mott: You mean the abscess between the larynx and the pharynx?

Dr. Douglas: Yes.

Dr. A. Mott: In what respect?

Dr. Douglas: As regards such an amount of disintegrated filamentous tissue not being found in either an acute or a chronic abscess.

Dr. Mott: I say it is rare to see so much sloughing filamentous tissue in any chronic abscess.

Dr. Douglas: You added acute.

Dr. Mott: I will repeat it—or hanging from the walls of an acute abscess.

Dr. Jas. R. Wood: I rise again to renew my motion to refer this to a select committee, before which each of the gentlemen interested will be heard. I move that a committee of five be appointed, and, sir, I wish it understood that I will decline to serve on it.

Dr. Barker: I move an amendment to that. I cannot see the benefit that would arise from sending this subject before a committee. Why not discuss it in the open Academy? I can see no advantage in referring it to a committee; but I do, in making it a general discussion, in which we may have the aid of the multitudes of physicians who are daily in the habit of performing the operation in question. Ninety-nine physicians out of every hundred have recourse to it in daily practice.

Dr. Wood said he would willingly accept the amendment, but there were a great many questions to be considered, and investigations to be made, which could only be thoroughly attended to by a committee. There were several gentlemen present from abroad, and he did not wish to have it said that the applause or the hissing that had been here manifested, belonged to the members of the Academy.

Dr. Reese: I again submit that the presentation of this case is not complete on the part of Dr. Beales, until he shall inform us what was the cause of death. I submit whether the City Inspector's certificate is not a part of the record as stating the cause of death.

The President: I believe it is essential.

Dr. Beales: I will answer the question. The cause of death, as placed on the certificate of the City Inspector, was "effusion into the lungs"—among you, gentlemen, here, not a very accurate description. There were two reasons, I believe, why that certificate was so returned. One was, I am allowed to say, from kindness towards Dr. Green. It was suggested by Dr. Mott. Finding myself somewhat embarrassed as to how I should make a return to the City Inspector, I consulted Dr. Mott upon the matter. And I will take this opportunity of stating, that we have, both of us—and I can appeal to Dr. Mott to sustain me—been most urgent that this thing should be left quiet, and that blame should fall upon no person at all. The return to the City Inspector was made with that intention. It may be that scientifically it was not perfectly accurate, but I appeal to Dr. Mott if the intention, in so framing it, was not to avoid implicating any one.

Dr. Mott: I am very happy to say that we conferred upon that subject, and a common desire was felt that nothing should be said that might awaken public feeling, or reflect on Dr. Green. I am sure that was enough. It is not worth while for gentlemen to talk in that way exactly about names being specific. Where is there the medical man who is not occasionally put to his trumps to say what is the cause of death?

Dr. Green: I wish to have all the truth brought out, and should be sorry if anything was concealed from delicacy of feeling towards me. If these gentlemen have not reported to the City Inspector the true cause of death, I will not say they have failed in doing their duty, but I will say they would have done it better if they had. I should be glad to have them state the cause of death before the Academy. If they know it, let us have it. Having been accused directly by Dr. Beales of having, by my treatment, caused the patient's death, I wish to have that cause stated, and I expressed the wish to him, inasmuch as I am constantly treating patients in the same way. I have desired him to state to me explicitly in what way I caused death, and he has declined giving me an answer. I would like to know how a treatment in universal use should have been attended by such results.

Dr. V. Mott: I will say for the edification of the gentlemen present, that we are all at a loss occasionally. Now, for the information of the Academy, I tell you that that gentlemen (Mr. Whitney) died of an abscess in the left side of the larynx anterior to the pharynx, and a little posterior on the left side; that was the exact situation of this abscess. Along with that, he died with a most splendidly normal larynx and trachea, until within about an inch of the bifurcation. He died of inflammation of the mucous membrane of the lower part of the trachea, of prodigious inflammation of the left bronchus, and of a less inflammation of the right bronchus. He also died from a cavity in the lungs, like as if they had been scooped out at the apex. He died of a very vigorous inflammation of half of the left upper lobe, with hepatization, and a hole leading through the pleura costalis and pleura pulmonalis, from which arose the extensive emphysema.

Dr. Green again said he was ready to come before this Academy of his compeers, and have the question thoroughly examined. But I have had something to do with committees in this Academy, and, until a report in which I am concerned, that has been lying three or four years on the table, comes up and is disposed of, I would not feel warranted in favoring a reference of this subject to a special committee, as has been proposed.

On motion of Dr. Beadle, the whole subject was laid on the table, and the Academy then adjourned.

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EDITORIAL AND MISCELLANEOUS.

OUR NEW VOLUME.

Still willing to labor; still anxious to be useful; still ambitious to advance the standard of our noble profession, we fill up our inkstand, open a new box of steel pens, purchase a new ream of paper, and begin the editorial department of Volume VI, of the *New Orleans Medical News and Hospital Gazette.*

Few, very few of our subscribers have half an idea of an editor's life. Their duties are few and plain; ours, many and difficult to perform. If a subscriber pays for his journal, the editor is satisfied with him; if he pays and contributes, the editor is obliged to him; if he pays, contributes, and sends one or more new subscribers, the editor is delighted with him, and owes him his especial attention, "when he comes to town." The subscriber is to be envied then, for he can do himself and his fellow-men a great deal of good with very little pecuniary expense, and the most reasonable share of mental or physical exertion.

But look at the picture of the editor! Every night in every month, seated at his desk with fifty exchanges before him, from all parts of the civilized world, and in more languages than one, from the pages of which he is to learn the medical news and collect the latest useful data for his patrons; his daily practice to attend to; his wife and children to be kind to; editorials to write for patrons who like only what is grave; editorials to write for patrons who like only what is gay; patrons to please, who do not like editorials at all; patrons to please who want all "original matter," yet who never write a line except to complain; books to notice which are not worth noticing; authors to compliment for their useful productions; authors to enrage because you conscientiously condemn them; printers' bills to pay without fail; subscribers to indulge who never pay at all. Such are a few of the items of an editorial life; yet we like it, as we do a friend, for its virtues, willing to overlook its imperfections.

We begin our new volume, then, with renewed energy and determination to do our whole duty. Thus far in life we have managed to overcome many obstacles, real and factitious, and we see no reason why we cannot do even more, seeing that we have a little more experience in the matter of conducting the crusade. Willing that our patrons shall see our faults, we send our new volume forth in larger and clearer type, adding more pages to insure the same amount of matter; and if our delinquents will only pay up, now, all arrearages, we will devote all to the improvement of each successive issue.

With this number we send bills to all our subscribers, trusting to meet with a liberal response. If any errors appear in these accounts, please notify us promptly, and we will most willingly correct the same. Once again, we say to those who are far behind (and their name is —— hundreds), pay us in part at least, or send us two thirds of your indebtedness, and we will give you a receipt in full.

DR. HORACE GREEN AND THE NEW YORK ACADEMY OF MEDICINE.—A very interesting little episode in the swabbing and tubing practice has lately transpired in New York City. Under the head of Special Selections, in this number, the reader will find the proceedings before the Academy as we find them published in the New York Medical Press. Of the accuracy of the report we can have no doubt, as no journal which desires the respect of the profession would make a garbled report.

No impartial man can read the account of this case of Mr. Whitney, without seeing in it all the evil results of exclusivism, or rather hobbyism, in medicine. It is evidently one of the characteristics of the human mind, that it can dwell on even the greatest fallacy until that fallacy will begin to appear before it as a truism. Granting that Dr. Green is strictly honest in the plan of treatment he pursues, and in this case of Mr. Whitney we see the Dr. treating his patient on his particular plan with a sort of preconception of his complaint. It is as if he reasoned thus: "I, Dr. Green, burn, swab, and tube for tuberculosis of the respiratory organs: this man has come to me, Dr. Green; ergo, he has consumption; ergo, I will burn, swab, and tube." The Dr. reports to the Academy a diagnosis of tuberculosis of the left lung, with the tubercles softened down and a cavity formed; he injects a solution of nitrate of silver into his patient's lung (or thinks he does), and swabs out his air passages with the same solution for imagined disease of the same; yet when the patient dies at the time the treatment is being pursued, and men of the highest eminence come to examine the body, no tubercles are to be found in the lung, and no disease of the air passages; on the contrary, "an open cavity, about the size of a small black walnut, of a reddish brown color, and irregular villous surface, as though a slough had separated," is revealed, and with this recent hepatization of the whole lobe, evidences of recent pleural inflammation. And, again, these gentlemen find the right lung "perfectly normal," while Dr. Green found its summit "slightly dull," or, in other words, the seat of tubercular deposit. So far from the larynx, which Dr. G. had been swabbing out as late as the 9th of December, or twelve days before the death of the patient, being found diseased, these gentlemen all remarked that they "had never seen a larnyx and trachea more natural and healthy."

The first question that arises is: Is it not more probable that the condition of the organs was what these gentlemen report as the result of ocular demonstration, than what Dr. Green reports as the result of external examination during the life of the patient? We say, by all means. Then here was a false diagnosis of tubercular disease, and the treatment was unwarranted in every sense of the word—even if we choose to admit that Dr. Green's plan is ever admissible. And then, admitting that Dr. G. had positively diagnosticated the presence of a tubercular cavity in the summit of the left lung, does any man, with his mind unprejudiced, believe for one moment that a fluid injected into that lung could reach that cavity until the whole of the lung below had first been filled by fluid? Indeed, does not the plainest hydrostatic law make it imperative that the lung must be thus filled before the fluid can reach the cavity in its summit, as long as anatomy has the bronchus entering the lung far below its apex?

Whether the abcess found in the throat of Mr. Whitney was caused by Dr. Green, as alleged, we will leave the Academy to discuss and determine. One thing is very certain; when Dr. Horace Green dies, the practice of burning and swabbing these cases will begin to die too, and future generations will read of it only with that small interest which attaches to many other of the wild chimeras of medical men. The fact that a few notable *foreigners* are burning and swabbing, too, at the present time, should not blind men to the folly of the thing. English and French physicians can do wrong as well as Americans. No man should allow his own common sense to become subservient to mere position or reputation. *Nullius addictus jurare in verba magistri*, should be the motto of our lives.

A word now and we have done. Dr. Green tells the Academy that he has applied the sponge probang to the larynx more than 100,000 times since 1845. In thirteen years there are 4,745 days, and granting that Dr. Green labored every day, Sundays included, he performed this operation twenty-one times daily! We leave the reader to ponder over this piece of medical mathematics. Ours is the privilege of crying, *vive la bagatelle!*

But while we write, a friend hands us Harper's Weekly, one of the worthless popular sheets which degrades the press of the day, and in it we find the whole Whitney—Horace Green—affair laid before the "people"! Gentlemen of the Academy, be advised, and let Horace Green alone: he is popular pitch, and you cannot touch him without being defiled.

Our Private Infirmaries.—A few months ago we called the attention of our patrons to the advertisement of Dr. Beard's private Eye Infirmary. This institution is now a fixed fact in our community, and is receiving that liberal support it so richly deserves. We now beg to call attention to the advertisement of the private Infirmary of Drs. Choppin and Schuppert, where surgical cases of all classes are received and treated.

The gentlemen who direct these institutions require no "puffing" at our hands. They are thoroughly educated medical men, and have by their successes established themselves in the public confidence. In large cities alone can medical men pursue specialties and be remunerated for their labor, and in large cities alone can that amount of clinical experience be acquired which makes the young and vigorous mind most valuable to the community at large. No man can be a valuable specialist in medicine unless he has been thoroughly educated in medicine as an entirety, and it is just here that we are able to define the distinction between the scientific oculist and the business oculist; or between the surgeon and the mere carver of man's flesh and bones. Again, we say, Southerners need no longer travel North, East, nor West for the relief of their infirmities. New Orleans is regenerated medically, and she is a great centre to which all who are curable may come with confidence. The day has passed when the sick will be told—you are curable, but you must travel farther to be cured.

Necrology.—Dr. Richard Bright, the eminent English physician, died on the 16th of December, ult., in London.

Dr. B. was in the 70th year of his age, and was widely known.

Dr. John C. W. Lever, Physician Accoucheur to Guy's Hospital, died in London, December 28th, 1858, aged 47 years.

M. Berard, Professor of Physiology to the Faculty of Medicine of Paris, died December 13th, 1858.

Dr. Henry Marshall Hughes, Physician to Guy's Hospital, died October 21st, 1858, in the fifty-third year of his age.

DR. MÜTTER AND THE PHILADELPHIA COLLEGE OF PHYSICIANS have at last come to an understanding, and his Museum is to pass into their hands and become really useful to the medical world. A lectureship is endowed by Dr. Mütter, and a lecturer is to be elected every three years. If this honorable post is always bestowed on the best man, instead of the best boot-lick, as is the case not a thousand miles hence, we may hope for some good from it.

MEDICAL STUDENTS IN PARIS.—*The Medical Times and Gazette* says: "The number of inscriptions made at the Faculty of Medicine, between the 2d and 15th of November, 1858, was 1,065. The number of new entries is 251.

MM. ARDRAL AND RAYER have resigned their posts as physicians to La Charité. These gentlemen have reached the highest pinnacle of medical fame, and they are willing to see the way made clear for younger men to rise to distinction.

Dr. Wm. Pepper, of Philadelphia, has resigned the post of physician to the Pennsylvania Hospital, which he has so long held with advantage to the Institution and honor to himself and his profession. We have often followed Dr. P. around his wards, during our student's life, and ever found his teachings good.

The War between the Homœopathists and the Physicians of Paris.—The great suit instituted against us by the Homœopathic quacks of Paris, has terminated in their complete discomfiture—of course.

BOOKS AND PAMPHLETS RECEIVED.

"*The Transactions of the American Medical Association.*" *Instituted*, 1847. Vol. XI. Philadelphia: Collins, Printer. 1858.

After unusual delay, caused, as the Committee aver, by delay in the return of proofs that were sent to distant points for correction, we are placed in possession of this volume of one thousand pages, which is truly an honor to the profession of our country. It is not the province of this journal to notice works *in extenso*, though we feel every inclination to do so. We think all the papers valuable, and a copy of the *Transactions* should be on the table of every reading man in the profession. The "Prize Essays" of Professor Flint and Dr. M. A. Pallen—the first on "The Heart Sounds in Health and Disease," and the second on the "Opthalmoscope"—are truly deserving of the title, though to enter into special complimentary notice of them would look like partiality. To all croakers we would say, read this volume, and then tell us that the American Medical Association is productive of no good; that it exercises no influence over the profession! Great credit is due to the publishers for the beautiful manner in which the volume is executed.

"*A Treatise on the Veneral Disease.* By JOHN HUNTER, F. R. S. *With Copious Additions, by* DR. PHILIP RICORD, Surgeon of the Hôpital du Midi, Paris, etc. Translated and edited, with notes, by FREMAN J. BUMSTEAD, M. D., Lecturer on Venereal, at the College of Physicians and Surgeons, New York, etc. Second edition, revised, containing a résumé of Ricord's recent lectures on Chancre. Philadelphia: Blanchard and Son."

"*The Science and Art of Surgery: Being a Treatise on Surgical Injuries, Diseases, and Operations.* By JOHN ERICKSON, Professor, etc. An improved American edition, from the second enlarged and carefully revised London edition. Illustrated by four hundred and seventeen engravings on wood. Philadelphia: Blanchard & Lea. 1859."

"*A Practical Treatise on the Diseases of Children.* By D. FRANCIS CONDIE, M. D. etc., etc. Fifth edition, revised and enlarged. Philadelphia: Blanchard & Lea. 1858."

"*A Treatise on Human Physiology: Designed for the use of Students and Practitioners of Medicine.* By JOHN C. DALTON, M. D., Professor, etc., etc. With two hundred and fifty-four illustrations. Philadelphia: Blanchard and Lea. 1859."

Through our enterprising and accommodating friends, J. C. Morgan & Co., post office building, we are placed in possession of the foregoing valuable works from the well-known press of Blanchard & Lea. The three first named are too well known to require any special notice at our hands: they are standard works. The new work of Dr. Dalton we feel every disposition to praise. It is certainly one of the most interesting and instructive works on Physiology we have ever seen, and must become a favorite. Dr. Dalton is one of the working men of the profession in this country, and he is making his mark.

REPORT OF DEATHS IN THE CITY OF NEW ORLEANS, FOR THE FOUR WEEKS ENDING THE 20th OF FEBRUARY, 1859.—*From 23d to 30th Jan.*, 1859—Men, 30; women, 20; boys, 31; girls, 29; adults, 50; children, 60; males, 61; females, 49. Total, 110.

Diseases—Consumption, 9; croup, 7; inflammation of the lungs, 10; trismus nascentium, 9; stillborn, 8.

From 30*th Jan. to* 6*th Feb.*, 1859—Men, 35; women, 15; boys, 27; girls, 32; adults, 50; children, 59; males, 62; females, 47. Total, 109.

Diseases—Consumption, 13; inflammation of lungs, 15; inflammation of throat, 6; scarlet fever, 5; stillborn, 5.

From 6*th to* 13*th Feb.*, 1859—Men, 45; women, 20; boys, 38; girls, 29; adults, 65; children, 67; males, 83; females, 49. Total, 132.

Diseases—Consumption, 19; croup, 4; scarlet fever, 4; inflammation of lungs, 8; inflammation of throat, 11; stillborn, 7.

From 13*th to* 20*th Feb.*, 1859—Men, 36; women, 17; boys, 31; girls, 24; adults, 53; children, 55; males 67; females, 41. Total, 108.

Diseases—Consumption, 15; inflammation of lungs, 8; inflammation of throat, 12; stillborn, 6.

LIST OF PAYMENTS TO FEBRUARY 24, 1859.—Drs. H. Snow, vol. 6, $5; S. R. Oliphant, vol. 6, $5; J. A. Dill, vols. 4 and 5, $10; Neil Gillis, vol. 6, $5; L. H. Binford, vol. 6, $5; Wm. Reynaud, vol. 5, $5; C. H. Smith, vol. 6, $5; J. G. Moore, vols. 3 and 4, $10; Mr. W. L. Cushing, vol. 5, $5; Drs. W. A. Booth, vol. 5, $5; C. H. Dabbs, vols. 2, 3, 4, 5 and 6, $23; Wm. Mason, vol. 6, $5; J. G. Allen, vols. 1, 2, 3, 4 and 5, $21; J. D. Rogers, vol. 5, $5; P. C. Boyer, vol. 6, $5; W. F. Coates, vol. 6, $5; T. B. McMillan, vol. 6, $5; C. C. Meredith, vol. 5, $5; E. H. Pritchett, vol. 5, $5; B. B. Baker, vols. 4 and 5, $10; C. F. Farrar, vol. 6, $5; O. V. Shurtleff, vols. 5 and 6, $10; O. T. Ellis, vols. 4 and 5, $10; P. M. Enders, vols. 5 and 6, $10.

EXCERPTA.

On the Cure of Vesico-Vaginal and Vesico-Uterine Fistulæ.—By Dr. Gustav Simon. (Monatsschr. f. Geburtsk., July, 1858.)—At a meeting of physicians held at Darmstadt, in 1857, Dr. Gustav Simon detailed the methods he had pursued in the treatment of vesico-vaginal and vesico-uterine fistulas, and submitted eight of the patients who had been operated upon, to examination. Of 19 fistulæ treated, 10 had been completely healed; in 5, cure was nearly complete; 1 was abandoned as incurable; 2 women died after operation. One case was a vesico-uterine fistula—that is, the fistula passed from the bladder into the cavity of the uterine neck, without injury to the vagina; the urine passed through the os uteri. The incontinence of urine was cured by the obliteration of the os uteri, which was effected by uniting the split and freshened lips together by seven sutures. The woman retains her urine. The communication between bladder and the uterus persists; menstruation is entirely effected through the bladder. The woman remained well two and a half years after the operation.

In a second woman, the anterior lip of the os uteri was destroyed, with a part of the vaginal wall of the bladder, so that a deep vesico-utero-vaginal fistula resulted. This fistula was healed by using the posterior lip of the os uteri as a flap to be united to the walls of the bladder. In this woman also the menstrual secretion passes through the bladder. The woman is well three years after the operation.

In a third woman, a large fistula extended from the neck of the bladder to the os uteri. Dr. Simon split the os uteri and covered the loss of substance by means of the so-made moveable anterior lip, and united it to the walls of the bladder. This woman is well three years after the operation, and has borne a living child since.

In five other women, in whom vesico-vaginal fistulæ, varying from the size of a bean to that of a shilling, existed in various parts of the vesico-vaginal wall, cure was effected by the union of the walls of the bladder.

Others in whom the fissure was very small, were healed by cautery alone.

In three cases, the fistulæ were so large, that the deficiency included the entire *bas-fond* of the bladder to the urethra, so as to render the attempt to unite the borders of the fistulæ hopeless. In these cases Dr. Simon resorted to an operation to be presently described, which he calls the *cross-obliteration of the vagina.* Two women subjected to this operation have found their condition so much bettered, that both in sitting and at night they can hold their urine and void it at pleasure, and follow their occupations.

In the case of the only incurable fistula, the woman had a very large opening, the sphincter vesicæ being wanting.

The two women who died had fistulæ of medium size in the vicinity of the os uteri. In one who died of pyæmia, seven days after the operation, the walls of the bladder had united. In the other, who perished seventeen days after the operation, from suppuration in the cellular tissue between the bladder, uterus, and rectum, and consequent perforation of the peritoneum, the wall of the bladder had become united with the freshened anterior lip of the os uteri. In the operation upon the first patient, the uterus had been drawn down by Museaux's hook-forceps, in the second not.

A third woman died under Dr. Simon's care, after making a considerable division of a strong adhesion of the vaginal walls. She died on the sixth day of œdema of the lungs following on pyæmic pneumonia, before the operation proper for the fistula had been undertaken.

The operation performed by Dr. Simon consists in the free *freshening* of the edges of the fistula, and union by the knotted sutures.

We will now describe briefly his operation of *cross-obliteration of the vagina.* It consists in this—that the remains of the vesico-vaginal wall are brought into union with the freshened hinder wall of the vagina, or bladder, with rectum in a transverse direction. Thus, a receptacle for the urine is formed, which is embraced by the upper part of the vagina, the roof of the vagina and the defective bladder, and directs the urine into the urethra. A portion of the vagina below the seat of the operation remains as before. The operation is so carried out, in cases where the deficiency of the bladder is so very great, that of the hinder wall of the bladder only the urethra remains, that the upper edge of the remaining urethra is freshened over a space of two to three centimetres, and on the level of this edge, especially on the side and posterior wall of the vagina, a similar extent is freshened in like manner. The apposition of the wound is effected by six or seven sutures. With a very bent needle the wound made in the vagina is transversed and surrounded by one thread. The freshened part of the rectum wall and the hinder edge of the urethra are thus united when the loops of the suture are brought together.

The closure of the vagina forms a transverse—often, on account of the great yielding of the recto-vaginal wall, an arched line. Dr. Simon extols the advantages of this operation over the other methods, episiorrhaphy and transplantation for obliterating the vagina. It promises greater certainty in healing, it is free from danger, since only superficial mucous parts are divided, and so far answers the purpose, that it prevents incontinence of urine and preserves a portion of the vagina, and exerts no after bad influence. This operation he has performed three times, with so much success as to have only very small fistulæ remaining. By it the greatest deficiences of the bladder may be remedied.

Treatment of Diphtheria.—The epidemic of diphtheria appears as yet to have fallen with far greater violence on certain country districts than in our Metropolitan population. But very few cases have been treated in the London hospitals, and several even of those to which the name has been applied have resembled more closely a form of sporadic croup. No reasonable doubt can, however, now be felt that there is amongst us a disease of peculiar character, distinct from all the forms of angina, with which we have heretofore been familiar. That it is quite different from the scarlatina sore-throat is universally admitted by those who have seen much of it. One of the not least striking features of the epidemic has been its very arbitrary prevalence. It even appears to have displayed a preference for agricultural villages and districts of good repute in a sanitary point of view. Excepting we consider it a contagious disease it is difficult to account for its wide-spread and long continuance at such places as Reigate and Bagshot. From the fact above stated, we are not in a position to draw directly on hospital experience for any trustworthy rules as to treatment. The matter has, however, been a very frequent topic of conversation in medical circles, and we will endeavor to condense into a few brief notes the opinions which appear to be most generally accepted: 1st—As to tracheotomy. We used often to hear it alleged that the reason why this operation had been more successful in the hands of French surgeons in the treatment of croup than in England, was that the French croup was not unfrequently pharyngeal diphtheria, and did not involve the trachea. That opinion was probably ill-founded. The diphtherite described by Bretonneau, although undoubtedly beginning in the pharynx, usually extended to the air-tubes also. Such has certainly been the case in England. The membrane formed has differed from that of croup only in not being so coherent, and in being in diffused patches rather than in a continuous layer. Very few, indeed, have, we believe, as yet been saved by tracheotomy since the disease appeared in this country. At the Pathological Society a few meetings ago, M. Obré mentioned a case in which he had performed the operation with great relief, but the child had afterwards sunk. It would appear, indeed, that true diphtheria is much more of a blood disease and far less of a merely local one than English croup. Bearing upon this observation, and also upon the operation in question, is an important piece of evidence which has been repeatedly given by exhibitors of specimens at the Pathological Society, that the patient sank from exhaustion and not from apnœa. In several it was most expressly stated that the breathing had become comparatively comfortable before death occurred. Such was the case in M. Obré's patient, the introduction of the canula having afforded all the relief that could have been expected from it. In another instance a child exportated, when apparently in his last agonies, a perfect cast of the trachea; and the circumstance naturally excited the hope that he would then recover. The relief to his breathing was immediate and complete, but he nevertheless sank into a state of extreme debility, and so died, there being no further indications of laryngeal obstruction. The occasional occurrence of deafness or of partial blindness, during convalescence from an attack of diphtheria also seems to indicate a severe constitutional lesion. Although, however, these facts may lead us to be less hopeful as to the benefit to be looked for from opening the windpipe, yet it is an operation to which resort ought certainly to be had should death seem imminent from laryngeal obstruction. It is never good practice to let a patient die; and a doubtful remedy is far better than none. The experience of the French profession is also to a certain extent encouraging as to this operation.

The one point in practice upon which, as far as we can hear, all are agreed, is the importance of early and adequate local measures. If the surgeon see the case while the membrance is as yet limited to the tonsils and fauces, he has a fair chance of being able to rescue his patient; but if already the trachea is invaded by the disease, the probabilities are far otherwise. The pharyngeal pellicles should be detached or scraped away, and the part well swabbed with some strong counter-irritant solution. Whether the application ought to be strong hydrochloric acid or an almost saturated solution of nitrate of silver, opinions differ: but they coïncide in insisting that whichever is employed must be used promptly, freely, and if need be, repeatedly.

As to constitutional treatment, very various indeed are the remedies in which different observers have been led to place confidence. The chlorate of potash, although highly spoken of by many, does not seem to have established for itself that reputation which from its specific effects in certain forms of stomatitis many had hoped that it would gain. —*Med. Times and Gaz., Jan.* 1, 1859.

SECOND IMPREGNATION AT THE FOURTH MONTH OF UTERO-GESTATION.—*To the Editor of the Medical Times and Gazette.* SIR,—Mrs. S., aged 22, a stout, healthy looking young woman, commenced labor of her first child on the evening of November 7, the pains continuing at irregular intervals till the 11th, in the afternoon of which day I was called in, and found the pains, though short and ineffectual, occurring at regular intervals of five minutes. Upon inquiry, I ascertained that she had been married two years, and that eighteen months ago she had an abortion at the tenth week, from the effects of which she quickly recovered, regaining her usual strength in a surprising manner till the commencement of her present conception, since which time she has been in a moderately healthy condition. About four or five months ago she was, according to her own statement, seized with the impression that she was conceiving twins, and had subsequently at various times made mention of the same to her relatives. Finding, on examination, a rigid os uteri, I left her, informing the nurse to send for me when the pains became stronger. At 11 o'clock the same evening I was again summoned to my patient, and to my utter astonishment, found presenting umbilically, what I supposed to be a premature fœtus, which, by a few further efforts of the uterus, was expelled with a gush of liq. amnii. This I concealed under the bed-clothes, informing my patient and the bystanders that it was merely the passage of a few clots of blood. I now laid my hand on the abdomen, and found the cavity of the uterus still occupied; and examining *per vaginam* I discovered the head of a fœtus, pushing before it a dense bag of liq. amnii. The pains gradually increased in strength and efficacy till 2 o'clock, A. M., when the natural delivery of a mature, full-grown fœtus took place, and shortly after the placenta was expelled. I then directed the all-inquisitive nurse to go down stairs and make the mother a cup of tea, and during her absence I ascertained that the mass first expelled was a fœtus of from four to five months, in a high state of preservation, attached by its cord to a separate placenta, which was intimately blended with that of the mature fœtus; still there was a distinct line of demarcation between the two.

Now the question of superfœtation is one of the unsettled points in the profession, and for that reason I have thought it advisable to bring forward the facts of the above case, testifying that superfœtation may occur even at the fourth month of utero-gestation. Can it possibly be argued, in contradiction to this view, by the supporters of the theory of non-superfœtation, that this fœtus presenting no abnormal peculiarities was arrested in its development at the fourth or fifth month, and yet lived the full period of pregnancy?

I am, etc.,
JAMES PAERSON IRVINE.
Surgeon to the Union of Lancaster.

Galgate, by Lancaster.

INFLUENCE OF RESPIRATORY MOVEMENTS OVER DISEASES OF THE LUNGS.—M. Piorry tells us: "That the lungs when affected with hypostatic pneumonia, hæmorrhagic engorgement of their posterior parts, have become under the influence of deep and frequently repeated respirations, sonorous and elastic. Recent pulmonary congestions around tuberculous masses under the same influence, have been observed to be at once in great part dissipated; from which fact is derived the material proof, that the induration was in part caused by the congestion. In cases of congestions, and even of inflammations, repeated respirations may be followed by a very marked improvement in the state of these organs, and by a return to their condition of health. "I have also," he says, "obtained a remarkable amelioration in the case of a tuberculous patient, who had serious peritoneal effusion. Having made her respire deeply and frequently many times in the course of the day, the fluid, which was accumulated in large quantities in the peritoneum almost entirely disappeared in forty-eight hours. We can judge of the dimensions of the right auricle of the heart by plessimetry, and the heart diminishes rapidly in size under the influence of deep and accelerated inspirations. By this means we learn whether the heart is simply hypertrophied or hypertrophied and dilated."—*Gazette des Hôpitaux.*

ELECTRICITY IN TOOTH-DRAWING.—Some extractions made at the Hôpital St. Antoine, by M. Bygrave, during the action of MM. Legendre and Morin's induction machine, have been attended with very favorable results, only one patient out of seventeen suffering any pain, and in his case there was interruption of the current.—*Gaz. des Hôp., No.* 140.

NEW ORLEANS
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THE CHEMISTRY OF RESPIRATION.

A Lecture delivered to the Class of the New Orleans School of Medicine, by I. L. CRAWCOUR, M. D., Prof. of Chemistry and Medical Jurisprudence. (Concluded from March Number.)

The quantity of carbonic acid which passes in each minute through the pulmonary capillaries is about two hundred and sixty-two cubic inches, and the amount of carbon thus removed from the system is about one hundred and seventy-three grains every hour, or eight ounces in the course of twenty-four hours. Liebig takes a higher estimate, considering twelve ounces the usual amount. The evolution of carbonic acid is, however, much influenced by circumstances, some increasing it, others interfering with its normal excretion. Among the conditions increasing its exhalation, it is found that age and sex produce a material influence, the amount of carbonic acid exhaled by males being greater than that evolved by females, and the per centage quantity in them regularly increases, in health, up to the age of thirty years; from thirty to forty it is stationary, and then gradually diminishes, until, about the age of sixty, it is little above the quantity exhaled at fifteen years of age. In females the amount regularly increases until the catamenia make their appearance, when it continues stationary as long as menstruation exists. Any irregularity, however, in the menstrual function increases its quantity, and the physiological condition of pregnancy and the pathological condition of amennorrhœa instantly cause an increased evolution, which continues until the menstrual excretion is again established. We find that whatever increases the activity of the vital processes produces an increased exhalation of carbonic acid; thus, after a meal, when digestion is in full activity, a large quantity is excreted. A similar result occurs from strong bodily exercise, but if exercise be continued, so as to occasion fatigue, the amount evolved experiences a considerable diminution. It was found by Vierordt that all alcoholic stimuli have a tendency to repress the normal elimination of this gas from the system, and he observed on himself, that after taking a bottle of wine the carbonic acid fell from 4.54 to 4.01 per cent., being one ninth of its entire quantity, this diminution continuing as long as any alcohol remained unconsumed in the system. A similar result occurs after the use of tea and coffee, and digitalis exerts a most marked repressing influence. Heat and cold, by modifying the activity of the vital actions, exert, also, a regulating agency. An animal which, at the temperature of 47° Fah., expired 18.25 cubic inches of carbonic acid per minute, only exhaled 15.72 cubic inches when the temperature was raised to 67° Fah., and the number of respirations increased in the proportion of ten to nine at the lower temperature.

Many poisons exert a similar influence; thus opium, strychnine, hydrocyanic acid, as well as ether and chloroform, check materially the evolution of this gas. Dr. Snow found that a dog which exhaled in air 10.1 grains of carbonic acid only exhaled 4.8 grains when the same quantity of air was mingled with thirty-six grains of chloroform vapor. A cat expired in air 5.7 grains of carbonic acid; when the air was mingled with twenty grains of chloroform vapor it evolved only 2.0 grains, and this in spite of the increased muscular exertions of the animal. As, to a certain extent, the evolution of carbonic acid may be considered an index of the normal changes which are taking place in the system, it is evident that these substances act by interfering with the proper oxidation of the tissues, thus causing the retention of excrementitious substances in the blood, which should, under healthy circumstances, have been consumed or carried out of the organism as carbonic acid.

It must be borne in mind, that if the natural evolution of carbonic acid be prevented, poisoning ensues just as readily as if we breathe an atmosphere loaded with the gas; its production constantly goes on, for it has been proved by conclusive experiments that it exists preformed in the blood, and that an animal which is entirely excluded from atmospheric air or oxygen, will, as long as it lives, produce carbonic acid. Thus, it was shown by Spallanzani that snails would live for a considerable time in pure hydrogen gas and during this time they disengaged a considerable amount of carbonic acid. In some subsequent experiments frogs were kept for several hours in hydrogen and nitrogen gases, and all oxygen was removed from them by compressing their sides, before they were immersed in the gas, yet, in every instance, as much carbonic acid was evolved as if the animals were breathing atmospheric air; and it was found by Dr. John Davy that in a large number of instances, where he examined the blood of those who had died from protracted disease, the blood was loaded with carbonic acid, in quantity greater than could be excreted by the lungs.

This condition of the blood, during disease, he seems to have considered physiological, and believed to be the cause of the absence of pain in dying, which is frequently witnessed.

But carbonic acid is not the only substance exhaled by the lungs. The air in ordinary respiration is always charged with a large amount of watery vapor, the quantity varying from sixteen to twenty-five ounces in the twenty-four hours; this in part results from fluid introduced into the system, but is also produced in considerable quantity by the oxidation of hydrogen derived from the food; about three hundred and twenty-one grains of this element being burnt off daily. This water is not pure, but, like the perspiration, contains a large amount of animal matter in a state of decay, the quantity usually being about three parts in one thousand, consisting chiefly of altered albuminous products.

We have stated that if under any circumstances the normal evolution of carbonic acid be interfered with, poisoning ensues, and if the process be continued for a long time, as by breathing an atmosphere saturated with the gas, the phenomena of asphyxia occur, and death takes place. Whether suffocation occurs by means of strangulation, or by breathing an atmosphere unfit for the continuance of respiration, the effect is the same, the result being due to the excess and retention of carbonic acid in the system. If we respire into an atmosphere containing carbonic acid, its evolution is prevented, and if we respire the same air over and over again, it becomes gradually richer and richer in the same gas from its constant production from the waste tissues of the system. It is found however, that air frequently respired will not become charged with more than ten per cent. of carbonic acid; consequently, when this point is reached, its further passage from the body is totally prevented; it accumulates in the system, and the phenomena of asphyxia make their appearance, just as when the pure gas was inhaled; and it is found, as, in fact, we should *a priori* suppose, that when carbonic acid is formed by combustion or respiration in a badly ventilated room, its influence is infinitely more injurious than when an equal amount is introduced from without. In the former case it is formed at the expense of the oxygen of the air, and every volume of carbonic acid thus formed, indicates an equal volume of oxygen removed. If we suppose that in each case the atmosphere contains ten per cent. of carbonic acid, then in one instance there will be seven per cent. more of oxygen and seven per cent. less of nitrogen than in the other, since the production of ten parts of carbonic acid implies the loss of an equal amount of oxygen. In all instances where death ensues from asphyxia, the result is due to the accumulation of carbonic acid in the system, and not to its inception from without. Respiration cannot take place in an atmosphere of pure carbonic acid, as spasm of the glottis is induced, and as we see that air containing already ten per cent. of carbonic acid, will not allow the further diffusion of the gas from the lungs, it follows in either instance, that the gas thus pent up, must accumulate in the system, and exert its poisonous effects within the capillaries themselves. The same effect is induced if we produce more carbonic acid than the lungs are capable of removing in a given time; thus, the continued respiration even of pure oxygen, or of nitrous oxide, will in time produce the same result, as though carbonic acid itself were inhaled. These gases producing a rapid combustion in the system, necessarily induce the formation of a large amount of carbonic acid; the quantity at length becomes so great that the lungs are inadequate to effect its removal; great depression and coma are induced, and if the experiment be continued, death by asphyxia occurs. In proof of this, it was found by Zimmerman, that a rabbit which exhaled twelve and a half grains of carbonic acid per hour, when breathing atmospheric air, exhaled twenty grains when it was made to breathe nitrous oxide.

We thus see that unless there be allowed a free and constant outlet for the results of the wear and tear of the body, the carbonic acid so produced accumulates and produces toxic effects. It is, however, constantly observed that persons will live in an atmosphere which does not afford the necessary facilities for the due interchange of gases, and will appear to suffer but little or no inconvenience. This circumstance, however, is more apparent than real, and we owe to the observations of Claude Bernard, that under conditions where insufficient oxygen exists, and where carbonic acid is present in more than the normal proportion, a gradual depression of all the vital functions takes place, less oxygen is absorbed, and consequently there is less needed in the atmosphere. Bernard found that if he placed two birds under two bell jars of equal capacity, and in one introduced caustic potash so as to absorb the carbonic acid as rapidly as it was produced, that the bird in this latter jar died first, and that its temperature was much higher than the one which died in the jar from which the carbonic acid was not thus removed. The presence of the carbonic acid produced a condition of depression which diminished gradually the waste of tissue, less oxygen was required to sustain life, and consequently a less quantity of carbonic acid was ultimately produced. Again, if a bird be confined in a bell glass, and be allowed to breathe the same air over and over again, it will live for three hours, but if in an hour and a half, when the air is much vitiated by the production of carbonic acid, and the loss of oxygen, a second bird be introduced, it dies almost immediately. This latter, having all its functions in full activity, required, for support, a large amount of oxygen, whereas the former having had its powers gradually lowered by a progressively vitiated atmosphere, was able to exist, under conditions which were fatal to the healthy animal. It is necessary for us as physicians to ponder deeply over these facts, and to make known the fallacy that a confined air is not injurous because persons can become accustomed to it. The respiration of a vitiated atmosphere, even by producing this conservative depression of vital functions, in the end generates disease by repressing the structural changes which are necessary for healthy life, and we must, at the same time, bear in mind, the fluid eliminated from the lungs, containing animal matter in a state of decay, may, if respired, act as a ferment, and possibly is a frequent, although unsuspected cause of zymotic disease.

The production of animal heat is closely connected with the function of respiration, in as much as the combustion of carbon, and the production of carbonic acid necessitate exactly the same increase of temperature in the body, as would be produced were the same weight burnt in the open air. The combustion of one pound of carbon will evolve sufficient heat to melt seventy-five pounds of ice, or to raise one hundred and fifty pounds of water seventy degrees. Although many physiolopists consider eight ounces of carbon as the amount consumed in the twenty-four hours, Liebig takes a higher estimate, and thinks one pound the average quantity; this amount will combine with forty thousand cubic inches of oxygen to produce an equal volume of carbonic acid. If, therefore, as we have every reason to suppose, the same amount of caloric is given out as in ordinary combustion, the temperature of a man, weighing one hundred and fifty pounds, will be kept constantly at seventy degrees. In addition to this, we have to take into consideration the hydrogen of the tissues, which will combine with eight times its weight of oxygen. Supposing that five thousand cubic inches of oxygen are thus used, the temperature of the body will be raised twelve degrees more. Besides this, all vital actions are constantly accompanied by certain chemical changes, the union of acids and bases, compositions and decompositions, which are invariaby followed by elevations of temperature. It results, however, from the experiments of Liebig, that the quantity of oxygen absorbed into the blood from the atmosphere, and its union with the carbon and hydrogen of the tissues and food, is amply sufficient to produce the whole of the heat evolved from the animal body.

It must be borne in mind, however, that respiration does not produce heat; the combination of carbon and hydrogen with oxygen, takes place in the tissues themselves. The lungs are the vehicles for the inlet of air, and the outlet of the results of its combination, and are analogous, therefore, both to the flues and the chimney of a furnace. Mere frequency of respiration will not produce increase of heat, but will be rather a cooling process, owing to the cool air inspired; increased temperature can only result from increased waste of tissue, and the rapid respirations produced by exercise are sequences and not causes. Increased production of carbonic acid has taken place, owing to the greater vital activity induced, and the lungs are called upon to do extra work in expelling it.

A full and attentive study of the causes and results of the respiratory process, will always be attended with practical results to the physician, as he will hardly see a disease which does not more or less interfere with this function.

LONDON CORRESPONDENCE.

Messrs Editors :—Health is found here, as it is elsewhere, to be improved, and life to be prolonged, as sanitary measures are more extensively carried out; and to this end some of the first medical talent has been directed for years, aided by minds devoted to collateral branches of science.

The result has been a greatly diminished mortality, not only in London, but throughout the Kingdom. The death-rate for the year which has just closed, notwithstanding the great mortality caused in all parts of England in the last quarter of 1858, by diptheria, was less than for many previous years; in short, two less in every thousand than for ten antecedent years—being a saving of two hundred and fifty lives to the country in one year. It is a novel sight, when new sewers are being made, or old ones opened, to see how they intersect each other at distances varying from *ten* to *forty* feet below the surface; and at times, should curiosity prompt, one may walk for miles under the heart of this great and modern Babylon, in one of these underground chambers lighted with gas, the walls of the largest, I believe, being between four and five feet thick, and the tube twelve or fourteen feet in diameter, or capacious enough, you may fancy, to carry a large quantity of refuse into the Thames.

That the water of this river may no longer be contaminated, and send forth from its banks (as was the case during the unusual heat of last summer) a noisome stench, the sewerage of London is to be carried about thirty miles below the city before being emptied into the stream. It is a great undertaking, and the outlay very large, say about six millions of pounds. Last summer, too, the odour from the serpentine in Hyde Park, led to much discussion, and as the plentiful supply of lime, which was daily cast in at an expense of much over one thousand pounds per day, produced little effect above killing all the fishes, the water of the serpentine will most likely be drawn off entirely, the bottom cemented, flood-gates placed at one end, and the water allowed to escape as occasion may require, for the purpose of a fresh supply.

You may now like a sweeter subject than sewerage, and a more lively one than can be found in death-rate statistics; and this brings me to the subject of your request made so long ago, *i. e.* that I should send you something for your Journal. Without making this after the manner of a special communication for that purpose, you may be able, perhaps, to select some portion, and by giving to it a *name* and a *place*, appropriate it to your use. Beyond the range of medical science, there are many subjects of national, political and general interest, to absorb the attention in this busy, restless metropolis, whose great heart swells by night and by day at the sound of "merry meetings and delightful measures" of some of the millions of this ever onward moving mass. Whilst with others, alas! who find no home but a prison, no shelter but a refuge, no covering but tattered rags, no food but dry bread, to protract a little longer a living death, the heart indeed may beat and swell, but it will only be with the anguish of bitter despair. And yet the amount of money given to relieve the poor is enormous. There are some night refuges in London, where shelter is given to a limited number (*i. e.* from one hundred to six hundred in each house of Refuge) of men, women and boys for the night, with a plentiful supply of water and accommodation for warm and cold baths, each person who enters (unless there is some substantial reason for departure from the rule) being required to take a bath twice a week. In addition to the protection for the night, the males are supplied with eight ounces of dry bread, night and morning, and the females the same, with coffee. I have lately visited some of these places, upon which so much has lately been written, and in response to an article in the "Times," of December last, up to the present time, about £13,000, in small and large sums, have been given in aid of the funds.

Have you any idea of crossing the Atlantic next summer? If so, I need not repeat that I shall expect the pleasure of seeing you. I very frequently visit the Hospitals, where so much of interest is to be seen; on another occasion I will send you some cases.

The "Obstetrical Society of London," of which I am to become a member, has just started vigorously into existence.

Dr. Rigby is the President, and we may presume that all the new births which the Society introduces into "this breathing world" for the current year, will be perfectly *legitimate!* At the second meeting which was held a few evenings ago, a very elaborate paper from Dr. Tyler Smith was read, the main feature of the paper being a strong protest against craniotomy; indeed, Dr. Smith would discard such a measure altogether from his obstetrical practice. How then would he avoid the desideratum in cases of imminent danger to the mother? By denying, if I rightly understood the argument, the necessity for the existence of such a state of, or conjuncture of affairs, as would, under the generally adopted principles of practice, lead to the propriety, or the necessity of such an operation. To this end, Dr. Smith urges the propriety, and the salutary effect of the adoption of a digital examination some months before the period of the expected labor, in order that, should mal-formation, or deformity, or any extraneous cause exist in the parturient woman, that would operate as a bar to her safe delivery, or that would endanger the life of the child at the full time, in such cases abortion should be produced. Of the mode of effecting this, Dr Smith has the concurrent testimony of obstetricians of equal note with himself. I allude to the injection of warm water into the uterus. The moral and religious grounds which have been urged against such procedure are easily disposed of. What the safety of the mother demands is omnipotent.

But for the late hour at which Dr. Smith's paper was brought to a close (another having been read before) much discussion, upon some of the views maintained by the author, would have been elicited.

At the close of the year all the papers read before the Society are to form a handsome volume, when you may have an opportnnity of judging of the zeal and energy of many of the members of the "Obstetrical Society of London."

Extending one's remarks upon women a little further, I may mention, *en passant*, that Mr. Baker Brown, of St. Mary's Hospital, has just resigned the post which he has so successfully filled for some years. Who will be the new aspirant for fame in relieving the fearful maladies of the sex, to which Mr. Brown has devoted so much time and attention, is not at present known. The button suture of Dr. Bozeman is held in much favor, and is frequently employed at some of the Metropolitan Hospitals, with good, not to so say universal, success.

The late President of the Harveian Society, Dr. Hamilton Roe, retired from the chair in a very satisfactory manner to himself and to the Fellows of the Society, by giving at his house a *conversazione*, where microscopical examinations of the solids and fluids which enter into the composition of that paragon of animals—man—passed in pleasant review, and all things needful to some few hours pleasantly occupied brought the evening to a close.

I will now for a short time revert to Surgery—which, in London, as elsewhere, at the present day, is eminently conservative, and, referring to one branch, I may say that surgeons generally *crush* for stone, having due regard to the state of the bladder, prostrate gland and urethra—to wit: the bladder of sufficient capacity to retain five or six ounces of water in a tolerably quiescent state, the gland not *much* enlarged and the urethra not irritable. Under these circumstances (and even when some of them were in degree infringed upon), I have frequently seen Mr. Coulson operate upon private patients with complete success—five or six sittings, of as many, or of ten minute's duration, without chloroform, being required to complete the operation. The age of one person from the country was seventy-five. Much practice is required to grasp the stone in the lithotrite, and great caution to grasp nothing *but* the stone. Mr. Ferguson, of King's College Hospital, frequently performs the operation also.

You may have seen something of Mr. Holt's, of the Westminister Hospital, operation for stricture. I am inclined to believe that it does not find very general favor with the profession, and so far as the idea of the manner is concerned, not much with the patients themselves. It consists in forcibly, at one trial, *splitting up* the strictured part of the urethra, after this introducing and withdrawing a No. 10 sound, then sending the patient to bed and occasionally, during three weeks, passing an instrument.

The superiority claimed by Mr. Holt for this mode of operating is, that the stricture does not return. About two months ago Mr. Holt told me that he had performed his operation eighty-four times, only one being a failure—a much greater success certainly than can be claimed by those who descend by slow, perhaps easier gradation, the delicate pathway of a male urethra.

I do not remember, whilst a resident of the Crescent City, to have met with a medical friend who had employed a solution of morphine sub-cutaneously in cases of delirium tremens. A short time ago, Dr. Fuller, of St. George's Hospital, reported, at a medical meeting, one case, amongst others, in which he had injected half a grain of morphine in half a drachm of water, with almost immediate effect—this case having resisted the action of many previous remedies. The sleep produced was of twelve or fifteen hour's duration, the patient arousing from it, well.

The apprehended results in cases treated in this way, of fatal narcotism, have not been verified. The part chosen for the injection is not insisted on, avoiding, of course, close proximity to large blood vessels—the arm is, however, usually selected. A capital little instrument has been adapted to the purpose by a surgical instrument maker in St. James st., being a minute glass syringe with an exceedingly fine point to be inserted into the slight incision which has been made into the skin. If, in the unfortunately frequent opportunities which occur in New Orleans, a trial of this plan of treatment should be carried into effect, I shall be happy to hear the result, and equally so to receive your Journal which you kindly offered to send.

The winter here has been remarkably mild; scarcely any cold weather since the early part of November; indeed such a winter as would not affect the susceptibility of many tender exotics. The last was widely different.

It has just occurred to me that I might say a few words upon one other subject. The frequent cases of death which occur from the sale of poisons by chemists, has claimed the attention of Parliament, and very soon a bill is to be brought in by Mr. Walpole, regulating the sales of poisons and the manner of keeping them in the shops.

In a former bill twenty-three articles were enumerated; now the number coming within the provisions of the act is reduced to thirteen. The bill is framed with a view to the public good, and at a future time it may be well to examine closely into it. The recent wholesale poisoning, at Bradford, by the sale of arsenic, in mistake for an article called daff, (sulphate of lime) which is used to adulterate candy, has brought the subject forcibly before the public. B.

HYDRAULIC RESEARCHES ON THE CIRCULATION OF THE BLOOD.

By J. Marey, D. M. P., Interne à l'hopital de Cochin, translated from the French (Annales des Sciences Naturelles, tomes 8 et 9, fourth series), by F .J. B. Romer, M. D., Mobile, Ala.

(*Continued from March Number.*)

PART SECOND.

Influence of the elasticity of tubes on the flow of liquids within them, (viewed with reference to the appearance of the flowing.)

I have shown how elasticity acts, in modifying the flowing within a tube, *in reference to the quantity of liquid flown;* this liquid is, all things being equal, poured out more abundantly under the influence of intermittent pulsations, by an elastic tube, than by one inert. This is not the only result produced in the flowing; for this last is yet modified *as to* *its appearance*, and while in the inert tube, the intermission exists both during the flow and at the afflux of the liquid; the elastic tube, on the contrary, *transforms* the intermittent afflux to a flowing so much more continuous and regular, as elasticity has itself been urged more into action.

The *prolonging* effect of elasticity is that which has been best observed by physiologists. Heinbruck is the first who compared the part which arterial elasticity acted in the circulation, to that of a spring of a double action blower, on the air current, which it renders continuous. Since then, arterial elasticity has also been compared to that of a reciever of a forcing pump. These two equally proper comparisons, show that in the circulation, arterial elasticity is *the prolonging agent* of the heart's impulsion, *the transforming agent* of this intermittent impulsion into a continuous effect.

Transformation is so much the more complete as the tube is itself more easily and equally dilated by the impulsion of the wave; in other words, as *the elastic force is less felt and is increased less rapidly.* (1)

As many causes modify the *elastic force*, it is indispensable that we should examine them.

A. If we introduce a liquid under a given pressure *into a closed elastic tube*, we see—

1st. That the elastic force increases with the thickness of the walls.

Hence the thinner a tube, the easier it is dilated under a given pressure.

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(1) The elastic force, as understood by J. Hunter, is the resistance of a vessel to an effort at dilatation. Hence a very elastic vessel or tube, has very little elastic force.

2nd. The elastic force increases in proportion as elasticity has been urged oftener into action. (2)

Thus, if a tube to be dilated one cubic centimeter, requires a pressure of four centimeters of mercury, in order to dilate it two cubic centimeters, it will require over eight centimeters of mercury; and thus on, *until the tube's elastic limit is reached* (3) Hence, to a certain point, *the more a tube is distended, the less it is elastic.*

The *elastic force* may be rated, by measuring with a piezometer (piézométre) the tension of the contained liquid: This tension does not of right belong to the liquid, which is obviously incompressible; it represents the elastic force of the tube itself, transmitted, and, as it were, reflected by the liquid. We may substitute the word tension for that of elastic force in the two laws mentioned above. Experience shows us a third condition which modifies tension, namely, the surface of the tube, and we must add this other law:

3rd. *In the introduction of a given volume of liquid into an elastic tube, tension is in an inverse ratio to the parietal surface of this tube.*

In fact, to effectuate the necessary dilatation in a tube with a large surface, each point of this surface will be but little stretched; hence its elastic force will be but slightly increased.

B. If instead of a closed elastic tube, we experiment with one open, different results are obtained.

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(2) This law applies to every species of elasticity, such as flexion, torsion, compression.

(3) From the limit of elasticity, the elastic force ceasing to grow with the distension of the tube, and decreasing by reason of the gradual thinning of the wall (purvi), the tube is dilated into a bladder until it bursts. (This is at least what happens with gum-elastic tubes).

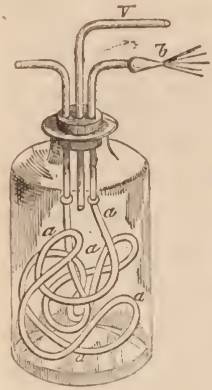
1st. *In an open tube elasticity is only excited, when there is an obstacle to the flowing.*

This obstacle may be due to friction, which has to be overcome, to gravity, or to the biscosity of the liquid.

2nd. *Elasticity is excited in proportion to the intenseness of the obstacle to the flowing.*

These laws are easily verified by means of the following apparatus:

Fig. 5



A three necked flask (fig. 5.) is filled with water; a long elastic tube (*a a*) is then introduced; one of the necks serves for the orifice of ingress, another for that of egress; to the middle one is adapted a glass tube which dips into the water of the flask. Each of the necks is exactly adapted to the corresponding tube. To conclude, the tube (*b*) through which the liquid flows out, is bent, and so is the middle glass tube (*v*) at a similar height; it is then continued horizontally, otherwise the ascension of the liquid in the flask, of the medial branch, would be obstructed by reason of the very pressure of the vertical column there formed.

This apparatus demonstrates to us:

That under a same pressure, *elasticity is so much the more excited into action, as friction presents a greater obstacle to the flowing.* This is a fundamental law, from which all other laws derive. Thus we observe, likewise, that when the impulsion is of short duration, elasticity is much more excited, and the liquid contained in the flask is more abundantly removed than if the same quantity flowed through in a longer time; the reason is, because *friction increases with the square* *of the swiftness of liquids;* hence, also, the action of elasticity is proportional to friction. (1)

In order that the transformation of a series of intermittent affluxes may be converted into a continuous and perceptibly regular flowing, it is necessary for each wave to find room, without increasing sensibly the tension of the tube, and that this tension be such that the whole wave may flow out before another comes in.

In the apparatus just described, when experimenting, the bent tube (*v.*) is the seat of remarkable oscilliatons, while, on the other hand, a manometer placed on the tube (*b*) towards the orifice, remains apparently stationary.

APPLICATIONS.

If we apply to the circulation of the blood, the laws enunciated for the flowing of liquids in elastic tubes, we already perceive:

· That the intermittent wave as propelled by the heart, to be transformed into a continuous flowing as it is found in the capillaries, can only take place on condition of a somewhat considerable tension of the blood in the arterial system. Now this tension can only arise when an obstruction impedes the flowing, and it exists above the obstacle. Hence the system of small intermediate vessels between the arteries and veins is the seat of considerable friction, and is the *principal obstacle* to the flow of the blood. (2) Bernouilli has investigated the laws of decrease of tension in tubes in consequence of friction, and he found that in a tube of *equal calibre* the piezometric tension diminished by a constant quantity, beginning at the level of the elevated receiver to the discharging orifice. The piezometric levels are then on a same straight line which unites these two extreme parts.

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(1) We may remark that the water coming in the glass tube by the medial neck *v*, expresses the augumentation of volume in the distended tube only, and not in any wise the interior tension, and a piezometer placed on the (trajet) course of the elastic tube (*a*) would give very different indications. Finally, in the case of intermittent pulsations of the liquid, both the piezometer and the tube of discharge are the seats of oscillations which give variations of volume and that of tension.

(2) I scarcely know whether it be necessary to remind that the principle often invoked by physiologists, of an equality of tension to explain the mean and sensibly equal tension throughout the arterial system, can exist in vessels, for the

If the tube has not been throughout of the same calibre, and if, consequently, it offers not everywhere the same amount of friction, the decrease of pressure ceases to be regular, and the piezometric line is sinuous; *their level remains raised above the greatest obstacle,* and decreases suddenly downwards; and this takes place in the vascular system.

The experiments of M. Poisenille, who found tension sensibly equal in the whole arterial system, *show that all the arteries on which he has experimented, are situated above the greatest obstacle.* Objections have been raised against the belief, that the greater amount of friction existed in the capillaries; these objections consist in this. It is alleged that the arterial system as a whole, ought to be considered, having reference to its capacity, as a cone, the summit of which is at the heart, and the base at the circumference; in other words, that the total capacity of vessels increases as

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simple reason that a current exists within them. Facts easily observed, prove this equality of pressure not to exist when the blood circulates. Hence, when in bleeding, we place a ligature on the arm and arrest the venous current, we see the tension of the veins increase above the obstacle, for the same reason that arterial tension is great above the capillaries, and the equality of pressure is established between arterial and venous vessels precisely because the current is arrested, and, there is consequently no more obstacle in friction.

If the ligature be drawn very tight, so as to suppress the course of the blood in the arteries, the current still continues under the influence of the elastic shrinking of these vessels, and the veins fill until the arteries are sufficiently emptied, so that the tension ceases to be superior to that of the veins. Then we have an equilibrium, because there has ceased to be a current.

we recede from the heart. From this progressive widening it has been inferred an impossibility, that while capacity grew gradually, friction should increase also. It ought to be recollected, however, that friction is in proportion to the wetted perimeters (périmètres mouillés), according to M. Poisenille's expression, and these increase much more rapidly than does some of the sections of small vessels. Friction will increase in these vessels, notwithstanding the increase of calibre found on adding their sections.

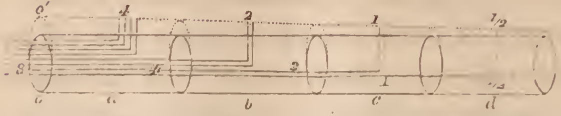
When a flowing is established in an elastic tube, *the expenditure of liquid is regulated by the mean tension of this tube.*

Hence, if the afflux of intermittent waves becomes greater, the mean tension of the blood in arteries will be increased, and with it the flowing through the capillaries. Both reach a fixed point, when the flowing of one wave is through at the instant another comes on.

It is seen from what precedes, that the manner with which elasticity transforms intermittent affluxes into a continuous flowing, is the same, whatever be the form (shape) of the elastic portion comprised between the orifices of ingress and of egress; but there are still other effects of elasticity, such as *arterial locomotion* (locomotion artérielle) and the pulse, which depend, at every point, on the tension of the contained liquid, and this requires the observation of tension in every part of the tube.

It will be seen that the tubular form modifies tension *in different parts*, and that in the like manner, as constant pressures are unequally distributed in the tubes in which they cause a flowing, so the additional intermitting pulsations are unequally distributed in an elastic tube.

Fig. 4



Let us suppose an elastic tube (fig. 4.) decomposed into a series of small segments, *a b c d*, the wave comes through the orifice *o*, represented by S. In the first segment this wave meets with a resistence by the column of liquid which already occupies it, and which, in order to progress, finds an obstacle in friction, *in the ratio of the square of its velocity*; the wave will hence be so much more difficult to move, as the impulsion will have been more sudden; but the lateral portions are susceptible of expansion, and from what we have seen, will be dilated even, because of the obstacle to the flowing. The force of the wave will, therefore, be decomposed into two parts, one, which I express by 4, serves to dilate and to elongate the segment of tube *a*, the other, also 4, impels the balance of the wave into segment *b*. In the segment *b* we already find the impulsive force reduced, by all that quantity which elasticity has consumed, in order to effectuate the dilatation of the first segment; this direct force reduced to 4, will itself be decomposed like the preceding. A portion equal to 2, will dilate the tube, while the remainder with a force of 2, impels the liquid into segment *c*.

It is thus that force is decomposed in the sensitive segments, so that after a certain length, direct impulsion is reduced to an infinite small quantity.

Such then is the explanation of the afflux of a wave, and if we consider this afflux as instantaneous, the form of the tube will be *at that moment* the sections of a cone, whose base *o o* is at the orifice of ingress of the liquid. The piezometric tension of each segment would at this instant, be according to a decreasing progression, represented by the following series of numerals: 4, 2, 1, ½ and 8. This state does not continue long, for an instant after, tension is modified in the various portions of the tube. The first segment received all the liquid which the wave brought along, and it attained at once its maximum of tension; henceforth it can only part with some of it. The succeeding segments have, on the contrary, received, (d'emblée) "suddenly," but a portion of the wave, so much the smaller as they are further removed from the orifice of ingress; but then, the further they are removed, the greater the quantity of *restored* force by the segments preceding them; these first segments will send on the liquid, until the flowing has emptied all the space made by dilatation, or, should the tube be closed, until tension is in equilibrium throughout the whole tube. In both cases, the oscillations of manometers, placed at various portions of the tube, show great differences in the manner in which they are produced.

Thus, near the orifice of ingress, the manometer *will suddenly rise* and *fall slowly;* at a distance from this orifice on the contrary, the *ascension* requires *time*, the length of which increases with the distance. Besides, in these latter portions, the restored force by the elastic tube, acting during a certain time, gives rise (so long as the force has not been weakened by contraction of the tube) to an accelerated motion, whether in the flowing of the liquid, or in the ascension of the manometric colume; for it is a law governing the effects of all continued forces, that *they all give rise to an accelerated motion.* Hence the manometric column is seen at such places to rise, at first with a slow, and to the eye, an insensible movement, without any settled point, then to gather more and more swiftness, until by the flowing, tension lowers and the manometric column diminishes.

The increase of tension under the influence of a wave, in open tube, being at any point but the excess of the afflux over the flowing, it follows that for equal impulsions, *tension will be so much the higher, as the obstacle itself is greater.* We may therefore vary the manometric height at will in any portion of the tube, to make it rise by increasing the obstacle to the flowing below (en aval) and to lower it, by diminishing this obstacle.

OF THE PHENOMENA WHICH IN ARTERIES DEPEND ON VARIATIONS OF SANGUINE TENSION.

We have said above that there are two phenomena which may be observed at various points, and which depend on sanguine tension; these are *arterial locomotion* and the *pulse* (locomotion artérielle).

These phenomena vary in their appearance, the same, as tension itself, and we will perceive as we progress, that the same laws which we have bestowed on elastic tubes, are applicable to blood vessels and to the phenomena which take place in them.

Arterial Locomotion.—Two kinds of motion (locomotion) have been observed in arteries; one we may name *motion by direct impulsion,* the other, *motion through lateral inflexion of the vessels.*

The first kind may be seen in a vessel which presents a sudden obstacle to the blood current.

Thus at the level of a bifurcation in an artery, the spur (éperon) being an obstacle to the wave of blood, is thrust forward, at each pulsation of the heart, the vessel is elongated; it returns again to its former condition and retracts the spur, during the interval of repose following the cardiac systole. When an artery is ligated in an amputated limb, the same phenomenon takes place, and it is yet more striking, because the obstacle is complete; in such cases we see the ligated artery thrust out of the soft parts and carried forward at each beat of the heart, it projects much further out of the stump after the ligature has been applied than previous to its application.

The law enunciated above, finds here a ready application, namely: *In a tube, in which a flowing is established, tension at a given point, is so much higher, as the obstacle to the flowing is itself greater below this point.*

The second kind of locomotion, or motion *by lateral inflexion*, which has sometimes received the name of *the straightening motion of curves*, is a complex phenomenon. Like the preceding, it results from an elongation of the tube; hence, if a tube or vessel be straight, the elongation will form curves, if its two extremities cannot be displaced, and thus give rise to the first kind of motion.

If a vessel be slightly curved, it becomes more so; but in the case of a too sudden curving, there is a tendency to an enlargement of its radius, (this takes place by an analogous mechanism to that which straightens the curve in Bourdou's manometer).

This second kind of motion is subject to the law which we have shown to hold for the first, namely: that an obstacle to the flow of blood, below the observed point, renders the motion more apparent.

In fact the part of the body, when this motion is most visible, is on the inner side of the arms of subjects, in whom the brachial artery is superficial; moreover, that the phenomenon may be well marked, let the hand be applied on the back of the neck; now, in this position, the region is not alone well exposed to the observer, but the flexion of the forearm compresses the vessels, and produces an obstacle to the flow of the blood below the observed point (we may satisfy ourselves of this, by searching the radial pulse, which will be found lessened); it is precisely this obstacle to the flow of the blood, below the brachial artery, which increases in it the maximum of tension, and consequently, lateral motion.

We will now pass to another effect due to changes of tension in arteries, namely: *the pulse.* This phenomenon is invested with still greater interest, as it is daily explored by the physician as one of the most important symptoms.

OF THE PULSE AND ITS MANNER OF PRODUCTION.

The pulse is the sensation perceived by the touch of the inequality in the tension of the blood in an artery. The finger, in order to perceive this inequality of tension, subrogates itself to the elastic force of the arterial pariety, by depressing this pariety, and in altering the cylindrical figure of the vessel, owing to which, every part offered an equal resistance to the tension of the blood.

It is now admitted, that the radial pulse is easily perceived only because readily depressed against the resisting surface of the radius. All surgeons allow, that in ligating an artery imbedded in soft parts, we cannot expect the pulsations to reveal to us its position; we may feel the artery without recognizing it.

It is therefore, not the dilatation of the vessel, but its more or less easy depressibility under the finger, which produces the pulse, and it is still easier to analyze the phenomenon by producing artificially, in elastic tubes, pulsations identical, as to their production, with the natural pulse itself. (1)

We can also show experimentally, that under the influence of an intermittent liquid afflux, a tube, simply depressed, but devoid of elasticity, (such as can be made of sticking plaster glued together,) gives pulsations when depressed by the finger against a hard body; but in such a tube *the pulsation retains the characters of the wave producing it;* for elasticity only can modify it, and the tube being only depressible, transmits the impulsion in the manner of inert tubes.

In an elastic tube, on the contrary, the character of the pulsation is modified, as we have seen above, in the same manner as tension itself, on which it depends, is modified. *Pulsation in this case* is shorter *and less strong than the wave.* Besides, as at a point of the tube removed from the orifice of ingress, the additional tension is rendered manifest on the piezometer, by an ascension in an accelerated motion of the liquid, so the pulse at this point consists in raising the finger, at first feebly, then with force and swiftness.

From this modification of the pulse by elasticity, it results, that the pulse, at a point of the tube removed from the orifice of ingress, is too weak at the beginning to be perceived by our imperfect touch, and becomes seizable to us only when it has acquired sufficient force and swiftness. *Thence, an apparent retardation of the pulsation, on the afflux of the wave of the pulse on the heart.*

Even as the pulse is but the additional tension of the heart recognized in the vessels, until the transformatory action of elasticity has equalized this tension, even so, what is understood by the *qualities* of the pulse, are nothing else but varieties of form in the tension which produces it, and is easily explained by the hydraulic laws of elastic tubes. We will therefore give an account of the experiments by means of which, we may readily apprehend the cause for varieties of form of pulsations in elastic tubes, and we will show their identity of nature, with the various forms of the arterial pulse.

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(1) It is impossible, when feeling these pulsations, to doubt of the identity of their nature with the arterial pulse.

The following is the order followed in this investigation.

A. Conditions of presence, or of absence of a pulse.

B. Circumstances which increase or diminish *the apparent retardation of the pulse.*

C. Conditions which produce the different *clinical* varieties of the pulse.

A. Conditions of presence, or of absence of a pulse.

From what has already been said, it is necessary, in order that the pulse may be perceived at an observed point (the heart beating normally) that the elasticity of the part of the tube above that point shall not have transformed the inequalities of tension into a sensibly perfect uniformity.

In experimenting with an elastic tube, we notice two cases in which this transformation takes place:

1st. When the length of the elastic tube, between the orifice of ingress and the observed point, is great.

2nd. When a large elastic bladder occurs above the observed point.

To destroy inequalities, two modes of action take place *in the length of the tube;* first, by multiplying friction, which but excites the more the elasticity of the tube above them, and by increasing the elastic *surface*, the effects of elasticity being increased by this last.

Experiments.—If we take a long gum-elastic tube of equal calibre throughout, and put it in communication with the ball described above, it acting as an impulsive agent, we can very sensibly feel a pulsation near the orifice of ingress at each afflux of the liquid wave. We may feel this pulsation still further on, but weaker; and finally, owing to the distance of the observed point from the orifice of ingress, it ceases to be perceptible. At this place, elasticity has had time to transform the intermittent pulsation into a sensibly continuous motion.

In arteries the same fact is observed, and the pulse becomes less and less perceptible (for an equal calibre of the vessel) as we recede from the heart. Hemometric experiments,which serve to increase the tension in different vessels, confirm this result, by demonstrating that the additional impulsions of the heart decrease as we recede from this organ.

2nd. *The presence of a bladder in the course of a tube*, produces effects similar to a great length of tube, for it increases the parietal surface above the observed point, owing to the transformatory action of elasticity.

Experiments.—If at the junction of a gum-elastic tube with the impulsive ball, we adapt a very elastic india-rubber bladder, it will be seen that the pulse is suppressed in the tube, immediately below this bladder. This fact is easily explained, like the preceding, by the transformation of the intermittent impulsion, owing to the large elastic surface.

The same phenomenon occurs in the case of an aneurism of an artery. Here the pulse is suppressed in the vessel, below the tumor, or, it is at least considerably diminished. In cases where the pulsations are unequal, those that are strong are only felt in the diseased artery; this gives rise to the variable pulse (pouls différens). In order that an aneurism may suppress the pulse in the manner here stated, it is necessary, as is readily apprehended, that the aneurismal sac be of a somewhat large size; that it communicate by a large apperture with the vessels; that it be sufficiently elastic; in a word, that it be able to lodge each wave without materially increasing its tension.

This suppression of the pulse by an aneurism, is a well established fact, taken advantage of in the diagnostication of this affection. This important symptom, when it exists, decides the question, whenever there is a doubt as to the artery in which the aneurism occurs. But the interpretation of the fact is faulty, when the diminution of the pulse is ascribed to clots in the sac, obstructing more or less the calibre of the vessel. This cause may occasionally exist; when it does, gangrene, of variable extent, shows us but too often that the circulation was impeded by the tumor; in the majority of cases, however, aneurism, as I said, acts only by its elasticity, and the circulation is not obstructed by the tumor. Cases have been mentioned of aneurisms at the beginning of the aorta, (1) *which suppressed the pulse in the arteries of the whole body*, without exposing the life of patients to immediate danger. This certainly proves that the circulation continued nevertheless in the whole system, and that there was a suppression of the pulse only because of the regulation of the flow of the blood.

B. Conditions of more or less retardation of the pulse.

Rouchoux (2) claims to be the first who pointed out the retardation of the pulse on the systole of the heart; his discovery was confirmed by Nick and Despine; in fine, the authors who in our days have studied the pulse, recognize the retardation and furnish us with important details concerning its production. Weber (1) has estimated the retardation for different arteries, he found :

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(1) Moniteur des Hôpitaux, 1857, No. 74, p. 388.

(2) Dict: en 30 vol. Art. Pouls.

For	the	sub-clavian	8	thirds.
“	“	facial	10	“
“	“	radial	15	“
“	“	metatarsal	20	“

Whence it follows that the retardation increases with the distance from the heart.

We have already mentioned above that the retardation of the pulse was only apparent, and that it is owing to elasticity, which produces the result in the following manner :

At the moment of a ventricular systole, the parts removed from the orifice of ingress receive but little of the direct force, but they receive every instant thereafter the force restored by elasticity in the shape of an accelerated flowing of liquid and a growing increase of tension.

Hence it results, that we perceive the pulsation by our touch only, when the additional tension has acquired a sufficient degree of development. But it takes so much more time to produce this increase, as the elastic force to which it is owing acts with less intensity and for a longer duration. Hence the conditions laid down above, as *favoring the transformation,* do also increase the apparent retardation, and in proportion as the pulse gets fainter, so also will it be more retarded. Thus at a great distance from the heart, and in an artery affected with an aneurism, the pulse is both weakened and more or less retarded. (2)

Weber's table given above, demonstrates sufficiently the influence, which distance from the heart produces on the retardation of the pulse. The influence of aneurism is not less true: Valleix (1) says, this to have been verified in several cases, but researches have rarely been directed for the purpose of elucidating this fact. As regards ourselves, whenever, in aneurisms, we have studied the pulse, with this point of view, we found a retardation so much the more perceptible as the aneurismal sac was larger and more elastic. The symptoms furnished by the weakness and principally by the longer retardation (retard plus grand) of the pulse, appear to us destined to aid much in the diagnosis of aneurisms, each time the tumor is hid in the splanchnic cavities, or is but little accessible to direct means of exploration.

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(1) De pulsu resorptione et tactu. Leips : 1834.

(2) We shall detail the experiments, which, made with elastic tubes, have demonstrated this fact.

EXPERIMENTAL RESEARCHES ON TENSION IN ELASTIC TUBES, (DESTINED TO THROW LIGHT ON THE STUDY OF CLINICAL VARIETIES OF THE PULSE.)

Up to our times, two principal experiments have been instituted in researches on the tension of the blood in vessels: one, the *manometer*, has been employed for a long time already; the other, of recent date, and but sparsely spread among us, is the Sphygmograph; we will examine them successively.

The manometer, employed first by Hales, consisted, at the beginning, of a very long open tube, in which the ascension of the blood expressed its tension. Many modifications have been introduced in the construction of this instrument, thus: Magendie, MM. Poisenille and Cl. Bernard, have each added their modifications. Much remains to be done, however, to bring this instrument to perfection; each of the instruments modified by these physiologists has special advantages, which makes it advisable to employ it in certain circumstances; some disadvantages are common to all. Thus, M. Poisenille, in order to get the mean tension of the blood within the vessels, was obliged to mark the maximum and minimum at each oscillation, and to deduce the mean. These two extremes varying themselves, (1) the mean varied also at every instant, so that the mean of all the *means* had to be sought. The difficulties in the conducting of experiments like these are so many, that one is astonished they should ever have been overcome. We, also, have sought to bring our share of improvement, and for this purpose we have constructed a *hemometer* which may be called *compensating,* as it shows itself the mean of successive unequal tensions.

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(1) Guide du Medecin praticien, tome ii, p. 52.

It must be owned, that in the evoluation of the forces which raise a manometric column, more attention has been paid to the maximum height to which the column is raised, than to the duration of this state of elevation. Yet physical laws teach us, that a force may be explained, either by a great effect of short continuance, or by a small effect of considerable duration. In the same way, manometric pressures are generally rated, the intensity of the produced effect, and the height of the column being only observed, and very little account being given of the duration of its elevation.

To remedy, in some measure, this insufficiency in manometers commonly employed, we have interposed a resistance to be overcome, and we have done so by increasing friction. Variations of tension are then *in the ratio of their duration and of their intensity,* because of the friction they have overcome, that is to say, by the work they have performed.

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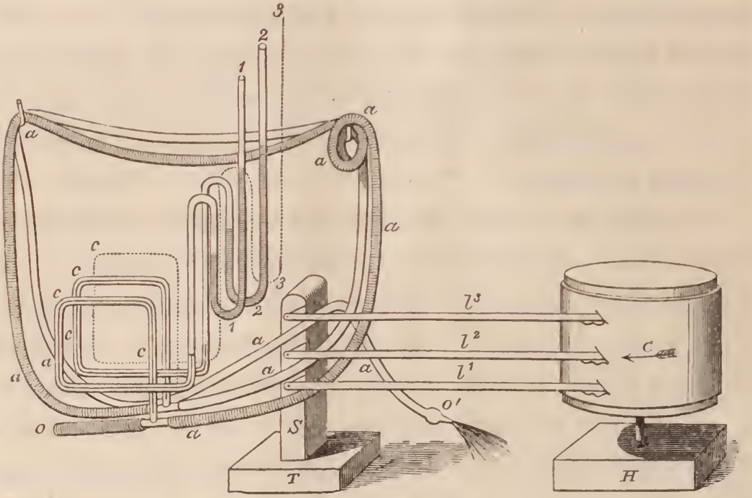
(1) Poisenille, Journal de Magendie, tome vii,

Our apparatus (fig. 6) consists in an open (á air libre) and in a mercurial manometer, in which a portion of the tube of communication consists of a fine capillary (1), while the part *m*, containing the mercury, is on the contrary very large. From the inequality of diameter in these two portions, it follows that a long time is required by the manometer to gain tension and be equipoised (owing to great frictions which the liquid, necessary to raise the manometric column, and contained within the capillary tube *c*, has to overcome).

Fig. 6.



As we proceed, it will be seen that these frictions serve in taking the mean among the various tensions.

We shall begin to demonstrate, that if the duration of the maxima and minima tensions be equal, the manometric column will stop, apparently immovable, at a point, the *mean* of the heights which would be indicated by the column, if the instrument was in equilibrium between the maximum and minimum tension. Further on, we shall see, that if the durations be unequal for the maximum and minimum tension, the manometric level will recede so much further from the mean position, as the inequality of duration is greater.

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(1) Fig. 6 shows three of these manometers in which the capillary tube has been bent, to lessen the height of the apparatus.

THEOREM FIRST.

When a manometer offers sufficient friction, so that to obtain under a given pressure its complete ascension, it requires a considerable time (say one minute), if pressure acts only every two, or one second, the manometric column will at first rise with unequal oscillations, but the ascending portion of it will be constantly decreasing, while the descending portion will as constantly increase, until the two portions are equal. At that moment the manometric column ceases to rise, and *the mean between the maximum and the minimum of oscillation, is also the mean between the initial point of the manometer and the maximum point, which the column would attain if pressure acted completely.*

One may always produce such frictions in a manometer, so that the time required for equilibrium be sufficiently long, in order that the variations of the column, during the additions and subtractions due to pressure, may be regulated (1). Then will the manometer be sensibly at rest, at a point which is the mean between the initial point of the instrument and the maximum height of the column.

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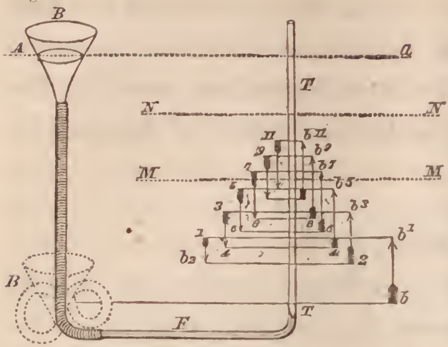
(1) If friction were too great, the manometer would require a very long time, before marking the mean tension, hence we must so manage them as to permit small oscillations, the mean of which is always easy to seize.

Fig. 7



Thus, let R (fig. 7,) be a receiver full of water, communicating in such a manner by a flexible tube with the manometer T, by the intervening capillary tube F (seat of friction), that the receiver may be shifted alternately from A to B, and that, owing to the friction in F, it shall require a long interval (say a minute), for the levels then at B and b to be transferred to a, when the receiver shall be shifted to A. Let us suppose again, that the receiver R remains alternately one second at A, and one second at B, in such a case the following is observed:

During the *first second*, the receiver is shifted from the level B to that of A; the liquid contained in the tube, rises from b to b^1 under the influence of the pressure by the column A B; for since it requires a minute for this level to pass from b to a, it can traverse a part only of its course, b, b^1, in a second.

Second Second,—The receiver returns at B; at this time, the column, b b^1, tends to bring the liquid back towards the receiver, but in the ratio of a much smaller force, when compared to that which the column A B possessed just now in effectuating the ascension in the tube; hence the level sinks only to b^2.

Third Second.—The receiver is again at A, it would raise the manometric level above b^2, by a quantity equal to b b^1, if the weight of the column b b^2 did not diminish that of A B; so that the pressure of the receiver is but the difference between the levels A and b^2; hence the second ascension is less than the first, and the level is at b^3.

Fourth Second.—The receiver is returned at B; the column $b\ b^3$, acts so as to produce a reflux, and being higher than $b\ b^1$, does produce a reflux greater than $b\ b^1$; this reflux is indicated by $b^3\ b^4$.

Fifth Second.—The receiver is carried to A, and raises the manometric level with a diminished force of $b\ b^4 > b\ b^2$; hence the manometric ascension is less than $b^2\ b^3$, it is $b^4\ b^5$.

For the succeeding seconds, it is seen that the ascensions decrease while the descendings (descendantes) increase, showing differences gradually smaller between themselves, until the oscillation becomes regular (its maxima and minima being steady).

At that moment, oscillation is but a small fraction of what it would have been without the friction at E; besides, its mean is that also between the points a and b.

In fact, when the oscillations are regular, and the ascension and the descent of the level of the tube are equal, it is indispensably necessary that the forces applied to the tube and the receiver, be equal; they are so when the level of the tube is in the middle of $a\ b$. Supposing M to be this middle, when the column $A\ B$ begins to ascend, its force is the difference of height only of the levels, and as $b\ M = \frac{1}{2}\ A\ B$, its ascending force, to raise the liquid in the tube is equal to that, which $b\ M$ will itself have the next moment, to produce the fall of the column when the receiver shall be brought to B.

THEOREM SECOND.

With the instrument before described, *the manometric heights are proportional to the time during which pressure acts;*

in other words, that the height at which the manometer stays with small regular oscillations, is the height it would have in the case of an equilibrium under continued pressure, as the periods of application of the force (les temps d'application de la force) are to the total duration of the experiment.

This fact demonstrates that, if pressure acts during two seconds, and ceases to do so during one second, the manometric height will be two-thirds of the equilibrium height.

In fact, when the column has reached the point where the oscillations will be regular (where the escensions and descents are equal), it is necessary that the force which causes the ascension shall be twice less than that which occasioned the descent. On this condition only can the inequality of force counterbalance that of duration. But the force which causes the ascension is only the excess of height in the receiver over the manometer. Let N then be the manometric level, according to the foregoing theorem, the ascentional force is equal to $a\ N$, and $b\ N$ will be the manometric height, or the force which produces the descent. These two forces, as regards their effects are in the relation of 1 to 2; but as the effect produced by the pressure of a column of liquid is proportional to the height of this column (1), we have for the measuring of $a\ N$ and $b\ N$ the the following proportion:

$$a\ N : b\ N :: 1 : 2,$$

which it was necessary to demonstrate.

From the description given by Mr. Vierords (2), the sphygmograph, a German invention, is a lever with unequal arms: the shortest is lifted up at each pulsation of the artery; the longer marks on a turning cylinder varied curves, according to the form of the pulse.

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(1) In the case of a flowing out through capillaries, the product of discharge is proportional to the load. (Law of M. Poisenille.)

(2). Bulletins de la Société Médicale Allemande, 1857.

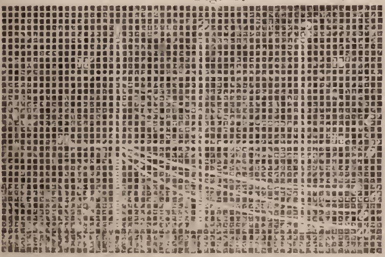
We have employed this instrument, after slightly modifying it, as will be seen from the description of the apparatus with which we have investigated, simultaneously, the mean tensions and the character of the pulsations at three different points of a tube, traversed by a liquid, under the influence of intermittent pulsations.

Description of the apparatus, fig. 6.

Let us take a gum elastic tube, *a a a*, whose extremity *o* is adapted to an impulsive ball, fig. 2, and whose other end serves as a discharging orifice, this last being provided with adjustings of different diameters.

The tube *a a a* is at once in connection with the three compensating manometers, destined to take its tension at different points, they are in the figure represented side by side on parallel planes. It will be seen that each is provided with the various contrivances which constitute them *compensating manometers;* the capillary tube only, has been twisted, so as to diminish the height of the apparatus. The levels of the mercurial columns are marked on a graduating paper, placed behind the tubes, fig. 8.

Fig. 8.



The second part of the apparatus is composed of a sphygmograph, which we have constructed as described above; but we have adapted three levers, l^1 l^2 l^3 to it, in such a manner, that the pulsation might be noted on three points of the same tube.

A stand *S*, raised on a plank *T*, bears the three levers, at the extremity of each is affixed a slight weight carrying a marking point or pencil.

At every motion of the lever, produced by an increase of tension in the tube, the pencil marks a sinuous line on the paper cylinder *C*, which is moved by a clock work *H*. The paper employed, is ruled by lines intersecting each other perpendicularly, the horizontal lines serving to compute the heights, and the vertical lines, the lengths of the pulsations.

If we observe the tube in its whole length, it will be seen, that beyond the extremity *o* it is in communication with manometer 12° 1, which takes its tension; immediately thereafter it passes under the sphygmographic lever l^1 which writes its corresponding pulsation; the tube thence continues for some length, when it turns to manometer 12° 2, which again takes its tension; on leaving this, the tube passes under the lever l^2 which writes its pulsation; after a tolerable long course, the tube returns to manometer 12° 3, thence to the lever l^3, and finally ends in the adjustment for the discharge of the liquid.

It will be seen that with this apparatus we can know, for any point of the tube, the *mean tension* and the *form of the pulsation.*

What we have said above, of the manner in which the compensating manometer acts, is sufficient to understand how it takes the mean tension.

As regards the form of the pulsation, two circumstances must be considered in interpreting it: First, when the lever oscillates, if the cylinder *C* be still, the writing point will describe sensibly vertical lines (1). Second, if the cylinder turns and the lever be immovable, the point will mark horizontal lines, fig. 9—*a à ä.*

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(1) These vertical lines are seen in figs. 9 and 11, where an impulsion had been given, the cylinder not yet turning: for the purpose of being sure, the marking points were on the same verticle line.

When both the lever and the cylinder are in motion, oblique lines result, which approach so much nearer the vertical, as the lever moves faster or the cylinder turns slower. Reciprocally, these lines approach so much nearer the horizontal, as the lever moves slower or the cylinder turns more rapidly.

This being granted, we can comprehend that when the cylinder turns with regularity, if the levers do not move with a regular motion, the markings of each will more or less differ.

Finally, if the oscillation be irregular, being either *accelerated* or *slackened,* the marked line ceases to be oblique, it becomes in this case a curve, *concave above* on the first supposition and convex on the second.

FIRST EXPERIMENT.

Researches on the variations of tension in a tube, at three points of its course (fig. 8).

1st. The tube being closed at *o'*, if the pressure of the base of Mariatte acts only, an equilibrium is established throughout its length, and the levels of the three manometers are alike ; they are on the horizontal line *n n.*

2nd. If the orifice *o'* be opened, the manometric levels will be unequally lowered, so much the lower as they are nearer to the orifice of discharge (a consequence to Bernouilli's law on piezometric tensions) ; in this case the line which connects these levels is represented by *a,* an oblique descending line.

3rd. If we now supply the adjutage employed, by one narrower, from what we know of the effects of obstacles, the levels will rise, and that so much the more as they are observed nearer the discharging orifice. The line of levels is here at *b*, and it is seen to rise so much higher above the preceding *a* as it is nearer the discharging opening. A third adjutage still narrower, will raise the line of levels still higher at *c*, the elevation being most marked in the manometers closest to the discharging orifice, the line of levels drawing closer and closer towerds the horizontal line *n n*, which it will quite reach, when, continuing to increase the obstacle, we suppress altogether the discharge.

4th. If we replace the largest adjutage (that which gave us the line *a*) and impress by means of the ball (fig. 2) intermittent pulsations on the flowing liquid, it is seen, that after awhile the line of levels is carried to *a′* (the punctuated lines give the levels obtained under the influence of the additional pressures). It will be perceived that the line *a′* is not parallel to *a*, but that every portion *a′* is so much higher than its corresponding *a*, as it is observed nearer the orifice of ingress.

Conclusion.—The foregoing proves, that the new force, due to an additional impulsion, is distributed in the same manner as that of the pressure from the receiver alone; that is to say, that the effect of this force is so much more evident as we approach the orifice of ingress.

5th. When employing successively the smaller adjutages, as we have already seen in the experiments on levels, during the flowing under the pressure of the receiver, it will be noticed, that the levels do in the same manner rise gradually higher and draw nearer to the horizontal line, in order to correspond with the lines *a′ b′ c′*, and when the obstacle to the flowing out is complete, the levels are all alike; they are found on the horizontal line *n′ a′*

SECOND EXPERIMENT.

Researches on the nature and character of pulsation in different portions of an elastic tube (fig. 9).

A pulsation, such a one as is exhibited to us by a sphygmograph, presents different elements for our consideration, which in an investigation it is highly important to separate.

1st. Its moment of appearance.

2nd. Period of increase and the nature of the motion producing it.

3rd. End of the period of increase, or the summum of the curve.

4th. Period of decline and the nature of its motion.

5th. End of the pulsation.

1st. Moment of appearance. The moment of increase in the tension of the tube, which previously was uniform, is shown by the sphygmograph by a deviation of the marked line; this, which during the repose of the lever was horizontal *a a′ a″*, becomes oblique, ascends, but with different degrees of inclination. The precise point where this change of direction takes place is more or less easily seizable by the naked eye, according to the degree of obliquity in the marked line; and it is so much easier to ascertain, as the oblique ascending line recedes farther from the horizontal. In some cases of concavity cf the ascending line, the first portions of the curve is almost confounded with the horizontal, rendering the perception of its beginning very different.

Let us add, that if the force producing this increased tension should at the beginning be weak, and then gather intensity even by its continuance, producing an accelerated motion, the sphygmographic lever cannot be raised suddenly. Indeed, to perceive the increase of tension, we must, as has been said, depress the tube with a certain force; that is to say, if we represent by 100 the pressure of the liquid in the tube, the pressure of the lever must be somewhat superior to it, say 105; and it follows that the vototitional force cannot raise the syhygmograph *instantaneously*, unless it be higher by five at this instant, or, being inferior to this number, it will raise it only, when, in its growing motion, it shall have acquired a force equal to five, which demands time.

Figure 9 represents three supperposed sinuous lines, each formed by the oscillations of a sphygmograph; the most inferior is traced by the one nearest the orifice of ingress, the middle line is traced by the sphygmograph l^2 (fig. 6) and the highest, No. 3, by the last sphygmograph.

If the first oscillation on each of these lines be examined, it is seen that the beginning of the lever's ascension is earlier in proportion as the pulsation is taken closer to the orifice of ingress; but it is also seen that the angle, at which the ascending line separates, is so much more open as we are nearer the entrance of the tube; hence this point is on the line No. 1, easier perceived than at any other part.

If to this cause of error, depending on the degree of obliquity of the ascension, we add (as has already been adverted to), that the lever can only be raised when the additional force has acquired a greater intensity than the force which depressed the tube, we can readily apprehend the reason for the production of a retardation in certain sphygmographic tracings.

It remains to be proven, that *there is in reality no retardation;* and for this purpose we have made use of a medium more sensitive than a sphygmograph, namely: a manometer containing a liquid of small density, and offering the least possible friction.

Experiment. Let us take a long gum elastic tube, fitted by one of its extremities to a raised receiver and terminating by a vertical glass tube, the height of the receiver. When the levels are in equilibrium, let us mark on the glass the summit of the liquid. If we now compress suddenly the elastic tube, it is seen to be always impossible to perceive the least retardation between the instant of compression and that of the rise of the liquid column in the glass tube.

On the contrary, without a mark on the glass, we cannot perceive the small ascension of the beginning, especially if somewhat distant, and the ascentional motion which in this case is manifestly accelerated, is perceivable only after a certain time.

2d. Period of increase in the oscillation, and nature of the motion which produces it.

As soon as the sphygmographic line rises above the horizontal, which it traced at the time of the uniform tension, of the points a a' a'', it is seen to describe two curves, which, united, form the shape of an S—at first, with a concavity above, and afterwards, by a convexity in the same direction, united together by a more or less short rectilinear line.

We have said that the first concave portion represents *an accelerated motion;* it is caused by the increase of tension, which, feeble at the beginning, goes on increasing in power; but as every accelerated motion meets a regulator in friction, bringing it back to an uniform type, it follows, that, at a given moment, the ascensional force becomes uniform; and its tracings are represented by an oblique, though rectilinear line. Finally, the impulsive force decreases, and, owing to the current, the excess of the afflux over the discharge—that is to say, tension—diminishes; the convex curved line, which represents the diminished motion, then succeeds to the rectilinear portion, until such time, when, the discharge being greater than the afflux, tension begins to decrease.

3d. Summum of the curve; intermediate point between the period of ascension and that of decline in the oscillation.

Owing to the diminution of the ascending motion in the last period, it will happen, after a while, that this motion ceases altogether, the flowing acts only, and tension is reduced. Between the period of increase and that of decline, the sphygmograph remains for a short instant steady (fixè)—the same as seen in a pendulum, between two halves of an oscillation. At this moment, the rotation of the cylinder being the only motion produced, the marking point traces a very short horizontal line, but which we assume, theoretically, as the expression for the maximum tensity.

The *height* of this line, described by the sphygmograph previous to the intervention of the additional tension, represents the intensity of the force by which the lever is raised: in other words, the intensity of the additional force itself in every portion of the tube. Now, we see this height diminishing on each of the lines, in proportion as we rise, by passing from 1 to 3—a further proof of the unequal tension throughout the length of the tube; a result agreeing fully with the one obtained by manometers (fig. 8), by showing, from the heights of the mercurial columns, that additional impulsions are distributed by decreasing from No. 1 to No. 3. This fact is due to the greater separation of the curves *a* and *a'* on the side of the orifice of ingress.

As to the form (shape) of the curve's summit, it varies according to the nature of the motion which the sphygmograph describes: that is to say, according as elasticity has been more or less efficient in transforming the wave's impulsion (impulsion de l'oudée). If elasticity has but feebly acted, the ascending portion, almost vertical, will make, with the descending oblique portion, a very marked angle (un angle très accusé)—as may be seen on the inferior tracings of figs. 9, 10, 11. If, on the contrary, elasticity has greatly modified the impulsion, the two curves, touching by their summits, give the appearance of a horizontal line.

As to the position which the summit of the curve occupies with respect to the vertical lines (which serve to measure time), it is easy to perceive that this point is so much more removed from the commencement of the pulsation, as we observe the tracings produced at a point farthest removed from the orifice of ingress. The summits of the curves $b\ b'\ b''$, are situated at points so much the more removed, even on account of the obliquity of the ascending line. It is hence seen that all the pulsations take place at the same time, as to their beginning (début), but that their maximum is so much more retarded, as we observe them farthest from the orifice of ingress.

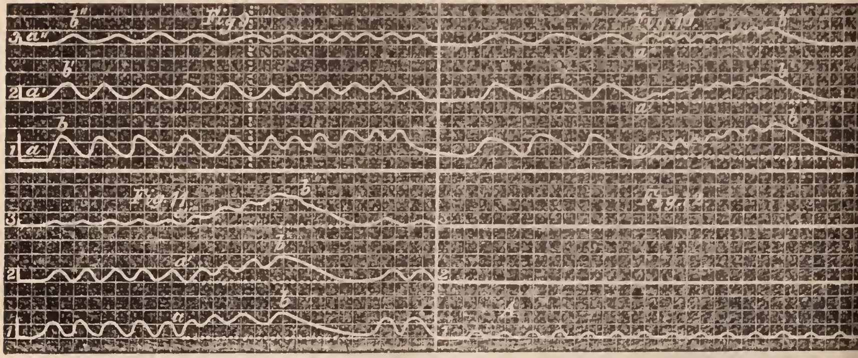
4th. Of the period of decline and the nature of the motion which produces it.

The descent of the sphygmograph is composed, like the ascension, of a motion at first accelerated, then diminished; but, as the motion takes place here in an inverse manner, when compared with what took place in the first portion, so, likewise, is its explanation the inverse of the former. To have the same sphygmographic expression, the figure ought to be turned upside down, so as to keep the summum of oscillation below. In the drawing, in its normal position, the accelerated motion of descent is represented by a curved line, convex above. The last half of this descent is a diminished motion, for the flowing, which is its cause, diminishes with tension: its graphic representation must also be inverse of the diminished ascensional motion, and a curve, with the concavity above, will, in this case, be the result.

5th. End of the pulsation.

The descending period of the pulsation may end in two different ways; either the additional tension is completely extinguished before a second impulsion comes on, or a second impulsion takes place before the effect of the first has subsided.

In the first case, the line of minima is found on the inferior horizontal (as seen at the commencement of figs. 9, 10, 11). In the second case, the minima are seen on an ascending line (*a b*, *a′ b′*, *a″ b″*, figs. 10 and 11), thus showing that the mean tension has been raised.



The sphygmograph may serve to verify the laws on tension given by the manometer.

Indeed we have seen that, in cases of increase of tension, by a growing frequency of impulsions, this increase is mainly felt at points nearest the orifice of ingress (this results, on the inspection of the lines *a* and *a′* fig. 8; the line *a*, being so much the more above *a*, as it is observed nearer the orifice of ingress). If we increase tension in sphygmographic experiments, by producing more frequent impulsions, (fig. 10), it will be seen, that the line of minima becomes ascending, and that consequently the mean tension increases; but we see also this increase, very perceptible on the tracing of sphygmograph 1, go on decreasing to the 3rd, which shows very well, that this increase of tension, produced by the greater frequency of affluxes, is felt principally on points nearest to the orifice of ingress to the tube.

The manometer has also informed us, that in cases of increase of tension owing to a greater obstacle to the flowing, the increase is mostly seen at points nearest the orifice of discharge (this results, fig. 8, from the elevation of line *b* above *a*, the higher, as it is observed nearear the discharging orifice). If in sphygmographic experiments, we render the flowing more difficult by adapting to the orifice of egress a narrower adjutage (fig. 11), but without changing in any manner the frequency of the pulsations, it is seen that the increase of tension, shown by the ascension of the line of minima *a b*, *a′ b′*, *a″ b″*, is so much the higher as we observe the tracings nearer the orfice of egress.

To conclude, we have said that pulsations might be suppressed by a great parietal elastic surface, situated above the observed point, and we thus explained the suppression of the pulse by an aneurism. Not to confine ourselves to this proof given by the touch, we adapted an india-rubber bladder between the first and second sphygmograph; we then observed (fig. 12) that pulsation was entirely suppressed in the tracings 2 and 3, below the bladder A, and moreover, that pulsation is considerably modified above the bladder on the tracing 1. At this point the lever is raised for only a short instant by the maxima of tension. It is in fact easily apprehended, that owing to the pressure of the bladder, the coming wave (l'oudée qui offlue) ceases to have before it the same resistance which it had heretofore, and that on account of the easier flowing, it exerts less lateral pressure to dilate the tube. This last will hence be distended only by the maxima of tension, as is seen on line 1, at any other time it sinks to the line of minnima.

I shall not insist farther on the modifications which sphygmographic tracings may be made to undergo, under different circumstances, nor on the utility of well understanding their hydraulic bearings; in order to apprehend the clinical signification of sphygmographic tracings, collected in various diseases, this will form the subject for a special study, which already attempted in Germany, appears to me to be worthy of being taken up afresh, and under auspices altogether new.

SPECIAL SELECTIONS.

OBSERVATIONS ON LEAD COLIC.

By Dr. Briquet, Physician of "La Charité," etc. (Translated from the "Archives Générales de Médecine" by Jno. J. Castellanos, M. D., of New Orleans.)

Completed from January No. 1859.

Observation having ascertained that the pain of lead colic was seated in the muscles of the abdominal walls, and that it behaved in a manner similar to that of muscular hyperesthesia, we could but infer that the treatment applied to these should also succeed when applied to that condition which attends lead colic.

It is now generally admitted that a very large majority of muscular hyperesthesia, and particularly rheumatic, as well as hysteric pains, seated in the superficial muscles, are very notably modified and mostly often removed by faradaysation of that portion of the integument which covers these muscles. It was, therefore, quite natural to try the effects of induced currents in the muscular pains of lead colic.

In my experiments, I have indifferently used either Mr. Duchenne's apparatus. or that of Messrs. Morin and Legendre.

In these apparatuses, the main motor is a galvanic current, generated by a pile of Bunsen, which electrizes soft iron bars, and thus imparts to them a magnetic power. Thus converted into a magnet, the soft iron reacts upon a very slender wire placed in its vicinity, and transmits through it currents, which, according to Faraday, are styled "currents by induction," or "induced currents."

As the electric currents impart a shock only at the time when they are interrupted, and as it is these shocks which we now need, the apparatus is so contrived as to produce a series of interrupted currents.

In fine, as from the very construction of the apparatus, the induced currents are endowed with more tenseness, *i. e.* electro-motor power, than the inducing currents, the use of the former is to be performed when an excitement is desired.

These currents are made to traverse that portion of the skin which covers the painful muscles in the following manner, viz: one of the extremities of the inducing wire, to which is fastened a small piece of wet sponge, being applied to the skin, as near as possible to the region of pain, the other extremity which terminates in a metallic brush, resembling a tuft of feathers, is carried over the same portion of the skin, throughout its whole extent.

This kind of brush must first be carried rapidly and obliquely over the skin, so as to accustom the patient to the sensation which it produces. Then, after the lapse of a few seconds, it is applied vertically to the surface, over which the operator gradually multiplies the number of shocks by rapid strokes, and by increasing to its maximum, the power of the apparatus. The parts already touched, are again and again submitted to the same process, until the skin assumes a reddish hue, and the pain proceeding from hyperesthesia disappears, including a space of time of from one to four minutes at most.

At the point of transmission of the current to the skin, a series of sparks is produced, which proceeds from the extremity of each metallic thread of the brush, and excites a succession of rapid sensations which are not easily borne. The skin soon reddens and the sufferings which are then experienced require a goodly share of courage and patience.

I must add that women bear this kind of pain with incomparably greater fortitude than men. These usually scream, throw themselves about, vociferate so vehemently as to alarm those who, perhaps, have not witnessed hysterical females, endowed with acute sensibility, bear the effects of these currents without betraying any sign of suffering save a few plaintive moans. It may be, perhaps, that house-painters, upon whom I mainly operated, belong to a more vociferous class of the human species. I would fain believe it, for the honor of the male sex.

Here then are the results of faradaysation. Of forty-two patients with lead colic, either simple or attended by other lead accidents, such as palsy of the extensors of the wrist, encephalopathy with delirium, or combined with other diseases, such as organic alterations of the stomach, sub-acute enteritis, cirrhosis, the four-fiths were cases of simple colic.

In one half this number of patients, the pain had been either intense or very intense; while, in the other half, it had been moderate; but to whatever extent the intensity of the pain had been in all these cases, there was restlessness, sleeplessness, and the patients crept on their belly here and there in the bed. At least one-third uttered groans. I have applied to the physician of the establishment at Clichy (a part of the country where white lead is manufactured), in order that his patients, who are deemed to be the severest cases of intoxication by lead, should be especially sent to me.

All these patients were subjected to faradaysation, on either the first or second day of their admission, and before they had begun any treatment. With few exceptions, faradaysation has always been applied either by me, or in my presence, and its results were ascertained and recorded before such persons as were present at the visit.

Constantly, and without any exception, the abdominal pain completely and instantly disappeared, no matter what its intensity might have been previously. We could then, with impunity, knead with our fingers that same abdomen, which, but a few minutes ago, it was impossible to touch how lightly soever without causing the patient to scream, and producing convulsive contractions. The patients could then forcibly draw their breath, could rise on their beds and could easily perform any motion without the least pain. To their amazement, and to that of the by-standers, they would walk to and fro, stand erect, lean backward, and return to their beds upon which they would nimbly throw themselves, without any inconvenience save that peculiar sense of stupor which ensues upon a powerful galvanization.

At the same time sympathetic pains, although intense in some cases, also ceased. Thus, two patients, whose toes had been so painful that they could not be touched, and could scarcely bear the weight of the sheets, were so suddenly and completely relieved after faradaysation of the abdominal walls, that they could bend and extend their toes with their hands, without exciting any pain; and could also walk without the least inconvenience.

In twenty-four patients, the pains have been completely removed by the first faradaysation, and have not reappeared since, although many of them were severe cases of colic.

In ten patients, they have reappeared, but soon yielded to a second faradaysation applied either on the evening of the same day, or on the next, and in one case, on the eighth day.

Of those in whom we resorted to faradaysation twice, three had been anteriorly subjected to a feeble faradaysation; some of these were my first cases, on whom I did not operate in a sufficiently effectual manner. A fourth patient, who had intense pain over the whole abdominal surface, had allowed me to operate on its superior portion alone, and thus the inferior portion had likewise to be treated on the ensuing day. In three, faradaysation had been used by way of experiment only, in one case on the back, in another on the ear, and in another case, on the muscles themselves. In fine, in three cases the pain notably diminished after the first sitting, and but a feeble faradaysation was required at the second.

Wherefore, I am convinced, that if the main portion of these patients had been properly operated upon at first, few would have needed a second faradaysation; and in my opinion, the pain of lead colic can be removed by the first faradaysation in a large majority of cases.

In seven cases, the pain yielded only to a third faradaysation. In one of these, the integument of a palsied forearm was submitted to faradaysation.

In fine, in one solitary case, the pain yielded to a fourth faradaysation alone.

In these cases of relapse, the pain never returned until after two hours of their disappearance. Most usually, this return never took place before five or seven hours; when, therefore, the patient had remained free from pain during a whole day, there was no fear of a relapse.

I have habitually allowed an interval of twenty-four hours to elapse between the first and second faradaysation on account of the difficulties attending hospital service, and of the necessity of my presence at each sitting. I am therefore certain that if faradaysation had been promptly applied at the reappearance of the pain, the latter would have been more easily removed, and we would have reduced to the space of one hour the duration of the pain of lead colic.

In simple cases, the subsidence of the pain was followed by the gradual disappearance of the several morbid disturbances. Thus, the appetite has promptly returned since twenty patients were enabled to take broth on the day following that of faradaysation, ten on the next, and two on the third. They were generally confined to vegetable diet, but during two days only; on the third and fourth they usually took solid food.

When vomiting had previously existed, it did not continue longer than one or two days after faradaysation, and usually occurred after a dose of the alum draught.

In order to determine as much as possible the relations that exist between the abdominal pain and constipation, relations that have hitherto been considered so intimately connected with one another, that constipation may be considered as a consequence of the pain; I have taken note of the time which has intervened between the disappearance of the latter and the first alvine discharge, and have found these to have occurred as follows:

On the day following that on which the pain disappeared, in seven cases; on the day after, in nine cases; on the third day, in four cases; on the fourth day, in nine cases; on the fifth day, in three cases; on the sixth day, in two cases; on the seventh day, in two cases. In the remaining six cases, this interval has not been noticed. Consequently, in more than one half of these the evacuations had not taken place until four days after the cessation of the pain. Not a single patient had taken any purgative substance during the treatment. In two cases only, a common salt enema had been administered.

From this fact we may evidently infer, first, that the pain of lead colic is not to be attributed to the retention of fecal matter in the intestines, since constipation persists, in more than one half the number of patients, during four days after the disappearance of pain. Second, that the pain does not paralyze the digestive tube, since constipation still continues, although the pain has been completely removed four days previously. Lastly, that purgatives do not cure the disease by unloading the digestive tube, since constipation still remains after the removal of the pain.

Faradaysation has in no instance provoked fever when it did not previously exist, and has not increased it when it was present. The only general effect produced by the operation was merely a sort of stupor and prostration which lasted several instants or hours, without producing any further disturbance.

Generally, after the disappearance of the colic, and the prostration caused by the electric shock, the patients at the end of one or two days felt no more uneasiness; they would get up, and unless there existed some complications, their cachectic condition would gladly disappear, leaving them, with the exception of some weakness, free from morbid disturbances or sufferings. Convinced of the necessity of a purgative, most of them anxiously turned their attention to the costive state of their bowels, but felt no other uneasiness.

The dates of their discharge were:

Three days after the first faradaysation, in one case.
Four days after " " in nine cases.
Five days after " " in six cases.
Six days after " " in six cases.
Seven and eight days after " " in four cases.
Nine and ten days after " " in eight cases.
Eleven days after " " in three cases.

In four others, there existed complications which detained the patients in the hospital, although the colic was cured in an average length of time in the preceding cases.

On an average, the patients have remained at the hospital seven days after the first faradaysation. This space which is that required in cases successfully treated by purgatives, could have been much shortened, had I not desired to observe the cases as long as I could. All these patients left at their own request.

The medicinal treatment has been quite simple: on the first day, a sulphur bath, to be repeated every second day; from one to two litres of lemonade, with from one to two grammes of sulphuric acid every day; a mucilaginous draught containing from two to four grammes of the sulphate of alumina, and one pill of five centigrammes of extract of opium. Not a particle of any purgative substance was administered.

Some patients took but a ptisan of dog-grass, and were cured in as short a time as the rest.

The medicinal treatment which I thought proper, to eliminate the lead from the system, has certainly had no direct influence upon the removal of the pain in twenty-four patients who were cured by the first faradaysation, since the operation was performed the day following that of their admission, and before they had taken any medicine. Besides, as in all these cases, the pain was suddenly and instantly removed by faradaysation, we could not ascribe so instantaneous a disappearance to any other cause than the operation performed at the time.

What is the mode of action of faradaysation? Does it operate by introducing into the economy a modifying agent, a sort of fluid which acts in the stead of the deficient nervous influx, and thus reëstablishes the equilibrium? Evidently no; for in this process of faradaysation of the skin, the current does not penetrate into the muscles, and cannot, therefore, act directly upon the nervous filaments which are distributed to these organs. In fine, in four mild cases, I have, by way of experiment, applied faradaysation to the painful muscles themselves, by causing the electric current to traverse their fibres, and, in three of these cases, there has been no permanent modification; the pain which had for awhile disappeared, having returned as intensely as before.

Does faradaysation act by stupefying the sensibility of the nervous filaments which are distributed to the muscles? Evidently no, again. As I have already stated, the operation is so conducted as to transmit the current through the skin alone, and is not allowed to affect the subjacent muscles. Besides, the currents which I have used are interrupted currents, and according to Mr. Becquerel, Senior, instead of stupefying, these very powerfully excite the nervous filaments through which they are transmitted. According to natural philosophers, the continued currents alone seem to possess this stupefying property. I have, therefore, used the permanent currents by means of the well known apparatus, culled Pulvermacher's chain. This chain, we are all aware, is a series of small spiral coils of zink and copper wires parallel with one another; each of these coils constitutes a small pile which communicates with its preceding and following mates, in such a manner that the total current which it generates has its maximum intensity at both extremities of the chain, one being the zinc, and the other the copper pole. This chain was fastened upon the abdomen, at the seat of pain, to a non-conducting elastic caoutchouc girdle. When the apparatus thus applied was moistened with some vinegar, a continued electric current was produced in the chain, which, proceeding from the zinc pole, traversed the integument of all the anterior abdominal surface, and entered through the other extremity of the chain, thus forming a continued galvanic current.

The operation thus performed is not a painless one; it is attended by a series of very disagreeable tingling sensations which produce red spots and a papular eruption along the course of the chain. There is, even, constantly produced, near the zinc pole, a small eschar of some milligrammes in diameter which extends through the whole depth of the skin.

This Pulvermacher's chain was used in three cases by the very individual who is now undertaking to bring it into general use.

In the first case it was permanently applied during forty eight hours, and during a portion of that time, two chains were used. The skin of the abdomen became covered with papulæ and excoriations, and two small eschars were also formed. The abdominal pain was not, however, notably modified. At the end of two days, we were compelled to remove the chain, for the pain still continued unabated. Faradaysation of the abdomen was then performed, and the pain instantly disappeared.

In a second patient we likewise applied at times one, at others two chains upon the abdomen; a slight diminution of the pain apparently ensued during two days; but on the third day it increased to such a degree that the chains were taken off, and faradaysation having been performed, it was from that very instant permanently removed.

In a third patient who was equally affected as the two previous, one and two galvanic chains were successively applied and retained during four days. The pain did not begin to abate until eight hours after the application of the apparatus, and the diminution continued so gradually that the pain did not completely disappear until the fourth day. It is evident that this result cannot be compared with that of faradaysation; moreover, there was no positive assurance that galvanization had any share in this result, since the pain did not disappear until after four days, which is the epoch of its most tardy disappearance when the divers modes of treatment for lead intoxication are used, and particularly the treatment by acids which was resorted to in the present case.

The continued currents could not evidently, in these three cases, claim the merit of any decided influence, and were far from being as heroic a remedy as faradaysation. However, as in two cases a certain degree of amelioration had been noticed during their application, a quite interesting question offered itself, viz: did this amelioration depend upon a certain accessory circumstance which had attracted my attention? Patients treated with Pulvermacher's chain do not experience great pain from the apparatus, as long as they do not stir; but whenever they do, some points of the chain accidentally touch the skin, and there results a slight electric discharge which smarts in a similar manner to the prick of a needle, and the apprehension of this insures the most complete immobility in the patient, as every movement is infallably attended with this result; thus, motion, a cause which is sufficient to keep up the muscular pain, is checked.

I have, then, sought to obtain this state of immobility without the intervention of the electric chain, and to insure, this result, all persuasive means being likely to have proved useless, I have used the curb-chains of the horses belonging to the hospital, thoroughly wrapped up, and soaked in vinegar, as Pulvermacher's chain, and then placed upon the abdomen of four patients, with lead colic, with all the required oral admonitions, and honored with the title of galvano-magnetic chain, and immobility was above all enjoined.

Of these, one patient was not at all relieved, and, on the following day was submitted to faradaysation which instantly removed the pain. The remaining three, who were nearly in the same condition as the former, were promptly relieved. I must confess, however, that one of these three patients who had taken, by way of general treatment, an infusion of dog-grass, has had a relapse several days after he had been enabled to walk about the wards, and that faradaysation was ultimately used to remove the pain.

Whence it results that rest of the painful muscles is one of the most effectual accessory means for the alleviation of the pain, and that, of all the treatments that which least disturbs the patients, is the most proper.

We must also infer, from these researches, that continued galvanization by means of galvanic chains, has, by way of its electric effect, no appreciable influence over the pains of lead colic, and that there is no proof that the most powerful currents exert a greater influence in the alleviation of these pains.

Faradaysation of the skin, as Mr. Duchenne has stated, acts in a similar manner to that of revulsives; it is the most striking confirmation of the truth of the ancient aphorism: "Duobus doloribus simul obortis non in eodem loco, vehementior obscurat alterum," and is the most peremptory argument in favor of the doctrine of revulsion.

It is easy to demonstrate that the influence exerted by the interrupted electric currents follows the rules of revulsion.

1st. Faradaysation of the skin creates the most violent pain which can be undergone, and I deem it more acute than that which is produced by iron heated to read heat: there are few pains which it does not instantly quell, whatever be their nature. Those which are produced by organic lesions usually reäppear soon after, but such is not the case with those which result from dynamic lesions; unless they are very intense, these are nearly always favorably modified or completely removed at the very instant of faradaysation.

If the pain which faradaysation excites is slightly intense, the effect is incomplete and the pain soon returns, and this is assured by the reason for which I have failed in some of my first cases of faradaysation. Wherefore, if we desire success, we must act energetically and not relent until the pain is removed.

If the pain which the operation produces is very violent, as is the case when faradaysation has been made to last four or five minutes, and when the number of strokes with the brush held perpendicularly to the skin has been increased, the pain which we desire to annihilate must be very intense if it does not yield. Such is the pain attending neuralgia of the sciatic nerve. As to the pain of lead colic, I have seldom seen it fail to disappear, at least for several hours, when faradaysation had been satisfactorily performed.

Faradaysation of the skin is certainly the most powerful and convenient revulsive agent. It produces a more violent pain than the red hot iron; it can be more easily prolonged, and can be limited within the narrowest space and extended over the widest surface, and, still, the skin remains completely sound.

2d. Its influence upon the pain which we attempt to remove, is so much greater as faradaysation is performed as closely as possible to the seat of pain, and, therefore, we can in most cases be sure of removing the pain of superficial muscles, not proceeding from inflammation, by faradaysation of the skin which covers them.

If, on the other hand, faradaysation is applied at some distance from the painful spot, its influence becomes much feebler. Thus, I have applied faradaysation to the forearm and loins of patients with lead colic, who experienced sympathetic pain in those parts; I have completely removed the abdominal pain when it was feeble, although it has, most often returned with the same intensity, and has thus compelled us to act upon the abdominal surface itself, in order to insure permanent relief. We must, therefore, in all cases, apply the brushes to such parts of the abdomen as are affected. This rule, however, is not to be followed with regard to the sympathetic pains of the thorax, loins, and inferior extremities, which attend lead colic, as these disappear of their own accord as soon as the primary pain has disappeared.

3d. The beneficial influence of faradaysation upon the pain is proportionate to the sensibility of the parts affected. I have applied faradaysation to the lobe of the ear, the end of the nose, the extremities of the fingers and toes, in patients affected with lead colic of slight intensity, and, in spite of the great distance between the electrized part and the seat of pain, I have sometimes succeeded in removing completely the latter; although, in most cases the colic which had disappeared for an instant, would return at the end of a quarter of an hour, or of one or two hours.

This explains a fact which has, at one time, seemed very singular, and which has afforded matter to explanations equally singular. I allude to cauterization of the lobule of the ear for the cure of neuralgic sciatica. Mr. Duchenne has often in my wards applied faradaysation by way of counterfeit to the preceding operation, to the end of the nose, or the lobule of the ear, in cases of sciatica. The pain of neuralgia was always suspended for a while, to the astonishment of the by-standers, and to the greater amazement of the patient, who was made to walk about the room without exhibiting any sign of pain. If the neuralgia was slightly intense, the pain would not return; but if the sciatica was intense, it would usually return after a lapse of time of variable duration.

4th. Faradaysation cannot remove the pain, unless it produces a more violent one; and in this article of the code of revulsion, we meet with the greatest obstacle to the use of faradaysation. The patients, it must be acknowledged, are delighted to be relieved of their sufferings; and, when it has been necessary, have submitted with good grace to a new operation; but they are generally very apprehensive, and when faradaysation is being performed, it is with great difficulty continued. Happily, there is a means of obviating this inconvenience, viz.: inhalation of chloroform. I have made use of this method in a certain number of cases, and have used faradaysation when complete anæsthesia was produced. At every stroke of the brush, the fibers of the neighboring muscles were seen to shiver and contract convulsively: the muscle underwent the effects of the electric current, while the brain remained perfectly unconscious, and, on awaking, the patient was freed from the colic as completely and surely as if he had experienced the pain of the operation.

By subjecting the patients to the influence of chloroform, we have the advantage of pushing faradaysation to its maximum of energy and duration. It is, therefore, indispensable to avail ourselves of chloroform in cases where the colic is intense, and is seated over a large extent of the abdominal parietes, and thereby leads us to think that a long and energetic process of faradaysation will be required in order to remove it. In the rest of cases, this preliminary operation is optional, and I have had recourse to it only in cases where the patients desired it, or when they seemed very irritable.

I know no other inconvenience in faradaysation of the skin than the pain which attends it. I have performed this operation, and seen it performed a thousand times, repeatedly, and, save the peculiar temporary stupefaction to which it gives rise, I have never observed any other particular effect.

Must all the patients with lead colic be submitted to faradaysation? And now, that we have positively demonstrated that the seat of the pain was in the muscles, can we not combat this pain by stupefacients, by local anæsthetics, or by the several revulsive agents which appertain to therapeutics?

I have inquired into, and experimented on a large scale upon the anæsthetic, locally stupefying, and revulsive agents in hysterical hyperesthesia, and have quite positively ascertained: 1st. That the simple narcotics, opium, belladonna, hyoscyamus, etc., are but illusive means, in a very large majority of cases. Besides, the whole series of these agents has been tried in chronic muscular rheumatism, without the least satisfactory result. 2d. That the anæsthetics, and, among others, ice, had more success than narcotics; but, nevertheless, exerted but a very limited influence. 3d. That the revulsives upon the skin, chloroform, sulphuric nitric ether, sinapisms, frictions, with castor oil, blisters, etc., had a still more powerful action, but did not succeed in at least one-half of cases. 4th, and finally, that the pain which had resisted the above-mentioned means, most commonly and instantly yielded to faradaysation.

Probably, then, faradasation would not seem indispensable in all cases of lead colic, and in the series of means indicated above, one might be chosen whose energy might seem most proportionate to the violence of the colic. But, in case of failure, which would often happen, we would be obliged to search in the dark, passing from one expedient to another, and thus waste three or four days in useless efforts. But, constitutional treatment alone, without all these topical remedies, can effect the cure, in that interval of time; and thus the new method would have been of no great advantage.

Faradaysation, on the contrary, has never failed in my hands; it has always removed the pain instantly, in most cases when once applied, and seldom more than two applications have been required.

It is the province of the physician and patient to choose; they are free to act as they deem proper.

Could we restrict ourselves to the use of faradaysation at the exclusion of any other treatment? I think we could, without any inconvenience, in cases which are not attended by much cachexia, although, in more severe cases, serious accidents may appear after the disappearance of the pain. It would, therefore, be always very proper to submit the patient to the special treatment of intoxication by lead.

EDITORIAL AND MISCELLANEOUS.

Wützer's Operation for the Radical Cure of Reducible Inguinal Hernia.—From the late March No. of the London Lancet we extract the following remarks which appear under the head of "Clinical Records." The reader will perceive that, in spite of the impotent croakings of those who have never performed the operation, or seen it performed, except on paper, or in empty society discussions, intelligent and progressive men are sanctioning it, and it is rapidly taking its place on the list of great and useful measures to alleviate human suffering. And here we take occasion to express the pride we feel in reflecting that

New Orleans has not been (as has been her habit) the last in this country to adopt an innovation in surgery which promises inestimable relief to suffering humanity. The rising young surgeons of New Orleans will always prefer to test an innovation, having its origin amongst intelligent medical men, to puffing, either directly or indirectly, one of the crying humbugs of the age—Sherman's patent truss! At the Infirmary of Drs. Choppin and Schuppert, in this city, can now be seen some five or six cases which have been operated on (some of them having been as bad cases as are generally seen), and any unprejudiced mind must at once admit that the results are triumphant. In the Charity Hospital, too, ward 7, can be seen a young man now nearly cured by this operation, with one of Sherman's silver trusses lying by him—a pretty toy for his amusement while confined to the room.

The Radical Cure of Reducible Inguinal Hernia.—We are glad, indeed, to state that the operation for the radical cure of reducible inguinal hernia is now becoming pretty general throughout the metropolitan hospitals. The operation itself, together with the instruments, although variously modified to suit the taste and ideas of the surgeon, all tend to effect one and the same object, namely, the complete obliteration of the sac formed by the descending hernia. A soldier or a sailor who may have hitherto been considered unsound and incapable for further service, from being ruptured, can now have his rupture radically cured, with an almost utter impossibility of a return of the malady in the same situation. The closed-up sac, if anything, adds additional strength to the parts. On the 11th inst. we saw a man, sixty-three years of age, in the Westminster Hospital, under Mr. Brooke's care, with a reducible inguinal hernia of ten years' standing, and a stricture of the urethra of about the same duration. He had worn a truss for the former, but this apparatus never effectually kept the hernia reduced. Wood's modification, or as it is now called, Wood's operation, was tried in this instance with perfect success. We have seen Mr. Henry Lee, at King's College Hospital, lately perform Wützer's operation with success; and Mr. Fergusson very recently successfully treated a case of left inguinal hernia in a young man at the same hospital, using a modification of the plug employed in the operation, which it is impossible here to describe without engravings. At St. Bartholomew's and University College Hospitals, numerous patients are submitted to operative measures with equal relief. The public are now becoming aware of the utility of the operation and the freedom from almost all risk attending it; and the consequence is, a number of applications at our public institutions for surgical relief by those afflicted with hernia.

INTERESTING EXPERIMENTS IN DIPTHERIA AND TYPHOID FEVER.—From the March No. of the London Lancet we learn that Dr. Harley has inoculated the full grown dog, the "young pup," the healthy dog, and the sickly dog, from a woman laboring under diptheria, but without propagating the disease. He, also, inoculated a snake (a species of cold-blooded animals), with like result.

We also observe that Dr. Murchison, wishing to establish or disprove the idea of the propagation of typhoid fever by the dejections from the bowels, fed a pig for six weeks on the dejections of typhoid fever patients, mixed with meal; and, instead of the animal dying of typhoid fever, it actually fattened, and when ultimately killed and examined, the glands of Peyer were perfectly healthy, as were the intestines throughout.

These experiments are certainly very interesting, but must not be taken as by any means conclusive, even if they shall be freely multiplied, or found constant in their results. Men and pigs are, no doubt, quite similar in many respects, but we suspect as broad a line of distinction in relation to their respective susceptibility of disease in its various forms as in other points. Pudding is palatable to both men and pigs, yet the former would take their share hot, while the latter would prefer theirs cold. And then, again, while pigs will eat almost anything agreeable to men, men can by no means be so "hoggish" as to reciprocate the compliment. We are inclined to think there is some difference between the diseases of man and the animals below him.

M. Eugene Groux.—This gentleman, who has been an object of such intense interest to the medical profession in this country and in Europe, has recently delivered both private and public lectures to the physicians and students of this city, affording them the best opportunities for witnessing the beautiful phenomena connected with the action of the heart and lungs. It is almost needless to mention to the reader, that in M. Groux's case there is congenital abscence of the sternum, and the heart and lungs are thereby brought into communication with the senses unattainable under other circumstances. We would here enter into an account of the phenomena so beautifully demonstrated, but for the reason that we expect from a hand more facile in this respect complete details.

For the unreserved and liberal manner in which Mr. Groux yields himself to the most critical examination, we must express our admiration, as well as our obligations. He has thoroughly informed his acute and well-educated mind on this particular branch of medicine, and he seems fully to appreciate the value of his case to physiology.

REPORT ON THE NERVOUS SYSTEM IN FEBRILE DISEASES, AND THE CLASSIFICATION OF FEVERS BY THE NERVOUS SYSTEM. By *H. F. Campbell*, A. M., M. D., Professor of Anatomy in the Medical College of Georgia: Extracted from the Transactions of the American Medical Association for 1858.—If I were to express in adequate terms my admiration of this invaluable paper, I fear I should be set down as an enthusiast too easily captivated by a plausible theory; yet I cannot suffer the occasion to pass without exerting whatever influence I may command in calling the special attention of the profession to it. In my humble opinion, the researches and reasoning of Dr. Campbell afford the best explanation of the various phenomena of fever that ever has been published to the world. I believe that his labors in the investigation of this important class of diseases place him far ahead of any man in Europe or America, and that however slow their progress may be towards the attainment of universal confidence and acceptation, they will ultimately prevail with all the power of demonstrable truth.

We have no room in this number of our journal for any farther remarks on the subject; our only object being to invite special attention to Dr. Campbell's report. We hope he has had a sufficient number of extra copies struck off to supply the numerous calls that will doubtless be made for it. His colleague, Dr. Jones, has also been publishing some interesting "Observations on Malarial Fever," which were noticed in a previous number of this journal.

It is certainly meet and proper that the most important of all Southern diseases should be thoroughly investigated in the South, and we are proud to see some of our confrères doing such good service in the cause. F.

ANNUAL COMMENCEMENT OF THE NEW ORLEANS SCHOOL OF MEDICINE.—The Annual Commencement of this Institution was held yesterday, April 1, and under the most flattering circumstances. A large and appreciative audience of ladies and gentlemen (notwithstanding the very threatening weather) graced the occasion, thus showing clearly that there is a warm and growing interest in this flourishing School.

The exercises were opened with an eloquent and appropriate prayer, by the Rev. B. M. Palmer, Pastor of the First Presbyterian Church of this city; then followed the presentation of the Graduating Class, by the Dean, to the Trustees; then the conferring of the Degree of M. D., by the President of the Board of Trustees; then an Address to the Class by Professor Howard Smith; and, lastly, the Valedictory Address by Dr. H. D. Evans, a member of the Class, from Alabama; and too much praise cannot be awarded this promising young gentleman for the unusually happy manner in which he acquitted himself. Fine music enlivened the interesting scene, and the Third Session of the "New School" closed as brightly as its warmest friends could possibly desire.

The following is a list of Graduates for the Session of 1858–9:

Names.	States.	Names.	States.
Richard G. Hopkins	Miss.	C. C. Burke	Georgia.
Frederick Hasenberg	La.	Narcisco Hereu	Spain.
Samuel J. Hall	La.	Amasa H. Dubose	Texas.
J. B. C. Lyles	Ala.	Augustin Picheloup	La.
Ludolf Frommer	La.	Charles A. Kincaid	Miss.
Robert T. Walker	Texas.	Kenneth G. McRea	Ark.
J. L. Alston	Texas.	J. B. Payne	Ark.
Frank Ferrell	Miss.	A. Dorman Evans	Ala.
R. E. Ambrose	La.	Leonidas M. Renwick	Georgia.
Clarence B. Turner	La.	H. Sterne Brantley	Ala.
George T. Pursley	La.	Martin A. Martin	Miss.
R. A. Jamison	Ark.	J. W. Hays	Ala.
J. C. Denson	Miss.	T. P. Hearn	Miss.
R. H. Simmons	La.	D. F. Taylor	Texas.
Isham Kimball	Ala.	A. S. Murphy	Ala.
J. B. W. Meek	Miss.	Samuel F. Turner	Ark.
G. W. Peddy	Georgia.	J. W. Brown	Miss.
Thomas R. Ashford	Georgia.	D. S. Hunsaker	Texas.

The following gentlemen also received the Degree of Pharmacy:

A. Dorman Evans	Ala.	Fred. Hasenberg	La.
Narcisco Emilio	Louisiana.		

NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION—MEDICAL EDUCATION.—The next meeting of the American Medical Association takes place at Louisville, Kentucky, on the 4th of May, 1859. We sincerely trust that the profession of the entire country will be well represented. Louisville is a central point, and, at this season of the year, readily accessible to all.

On the day preceding the meeting there is to be a Convention of the Medical Schools of the country, for the purpose of devising means for the improvement of the system of medical education. We look with the warmest interest to the results of this meeting, as on it depends all the hopes of the advocates of reform. For ourselves, we feel conscious that the institution to which we belong has done more than all other schools put together, in the way of real practical effort to improve medical education in this country. For three consecutive years, the Faculty of the New Orleans School of Medicine has, in the face of the most violent local opposition, as well as general rivalry conducted on the old system, battled for material reform, and they have succeeded beyond the expectations of their most sanguine friends—clear beyond those of their enemies; but they may not be able to fight always thus single-handed. As a corporate body, and as individuals, they are known to be warmly in favor of any reasonable reformatory measure—indeed, they will go with the respectable schools of the country as far as they may see fit to go. By their actions, and with their pens, they have proved their zeal. Now they await support.

VOLTAIC NARCOTISM FOR THE PRODUCTION OF LOCAL ANÆSTHESIA FOR SURGICAL OPERATIONS.—From the Number of the London Medical Times and Gazette for Feb. 12, we we learn that Dr. Benjamin W. Richardson, of London, has entirely succeeded in producing local anæsthesia through the means of voltaic narcotism. Dr. R. gives the details of successful experiments on man and the lower animals.

CHARBON FLY.—A highly esteemed patron writes to us for information in relation to what is called the Charbon

Fly. We regret extremely that we are unable to afford any information whatsoever on the subject. It is one of deep interest, however, and we hereby solicit from our readers any and all reliable information they may be able to collect.

Our Index to Vol. V.—Appended to this number our patrons will find the Index and Title-page for Vol. V, completed in February last. We should have issued it with the February Number, but for unavoidable circumstances.

List of Payments to April 2, 1859.—Drs. T. G. Spindle, vol. 6, $5; S. N. Walker, vol. 6. $5; C. N. Taylor, vol. 6, $5; R. T. Walker, vol. 6, $5; A. C. Huff, vols. 2, 3, 4, 5, 6, $23; B. C. Brown, vols. 4, 5, $10; Wm. Aills, vol. 6, $5; J. J. McLean, vol. 6, $5; F. M. Phillips, vol. 6, $5; J. H. H. Hedges, vol. 6, $5; Paul Bres, vols. 4, 5, 6, $15; J. J. Wade, vols. 4, 5, 6, $15; B. H. Moss, vol. 6, $5; A. Hensley, vol. 6, $5; L. Johnson, vol. 6, $5; J. M. Donald, on account, $10; E. R. Mordecai, vol. 6, $5; F. B. Coleman, vol. 6, $5; J. W. Breedlove, vols. 4 and 5, $10; B. P. Funchess, vol. 6, $5; J. J. Gauthreaux, vol. 6, $5; Wm. Kennedy, vol. 6, $5; E. Doumeing, vol. 6, $5; J. F. Thorpe, vol. 5, $5. J. C. Denson, vol. 6, $5; G. W. Blackwell, vol. 6, $5; G. H. Walker, vol. 4, $5; Atlanta Medical College, advertisement, $10; Alex. Yates, vols. 5 and 6, $10; Amzi Martin, vol. 6, $5; F. B. Shuford, vol. 5, $5; J. H. Baskin, vol. 5, $5; O. B. Bowen, vol. 6, $5; L. W. Chamberlain, vol. 6, $5; C. Beard, vols. 4 and 5, $10; O. J. Hood, vol. 5, $5; Wm. Jones, to January, 1860, $5; John Hebron, vols. 4 and 5, $10; Mosely & Caston, vols. 2, 3, 4 and 5, $18; Frank White, vols, 1, 2, 3, 4, 5, $21;

J. T. Murdock, vol. 6, $5; R. Fenner, vol. 6, $5; J. R. Downs, vol. 6, $5; M. B. Pollard, vol. 6, $5; N. C. Weems, vols. 4 and 5, $10; B. Chase, vol. 5, $5; A. McConochie, vol. 6, $5; W. B. Reynolds, vol. 6, $5; T. K. Finlay, vol. 6, $5; Wm. Harper, vol. 6, $5; E. P. Gaines, vols, 5 and 6, $10; G. W. Purnell, vols. 5 and 6, $10; J. Calderwood, vol. 6, $5; W. R. Capehart, vol. 6, $5; Estate of H. Holmes, vols, 2, 3, 4, $13; James W. Fair, vol. 6, $5; D. McGibbon, vols. 2, 3, 4, 5, $18; H. R. Walton, vols. 4 and 5, $10; D. McGibbon, vols. 2, 3, 4, 5, $18; H. R. Walton, vols. 4 and 5, $10; J. M. Langhorn, on account, $20; G. W. Holmes, vols. 2, 3, 4, 5, 6, $23; J. J. Burroughs, vol. 6, $5; T. S. Powell, vols. 4, 5, 6, $15; Robt. Lawes, vols. 2, 3, 4, 5, 6, $23; W. G. Conner, vols. 5 and 6, $10; W. H. Goode, vol. 5, $5.

Of the above list of payments we feel proud indeed, and we are under obligations to our patrons for thus promptly responding to our call. Let all delinquents look at the list and "do likewise," and we will all feel better.

EXCERPTA.

Physiological Knowledge Gained through Chloroform.—The following letter from Charles Kidd, M. D., we copy from the *European Times*:

"It is only within a few weeks that it has been clearly proved that the endowment called *common sensation*, the great root of consciousness as shown by Locke, Liebnitz and Schlegel, is not psychologically the same as the sense of *touch*, with which Dr. Snow and others have confounded it. Thus a man may have a red hot iron applied to his arm or leg under the influence of chloroform; he feels no pain, but he feels the iron as an affair of *touch* streaking out lines on his skin. The bearing of this fact on the phenomena of insanity, sleep and dreams, is most extensive. In the same manner, a woman in labor, with proper doses of chloroform feels no pain, but is quite conscious of the process of parturition *quoad*, the muscular sense (that would be agonizing cramps otherwise), going on as usual. This has only recently been shown by M. Brown-Séquard to depend on the fact already stated, but not suspected by Dr. Snow, who chiefly experimented on rabbits and dogs; indeed, a new world has, since his death, been opened up as regards the psychology of chloroform in relation to ordinary sleep, common sensation, touch, dreams, sympathetic action, emotion, reflex action of the sensorium, or soul itself on the body, etc., so that the subject is only in its infancy. I may say in conclusion, as a natural corollary, from these discoveries, Dr. Snow's opinion as to one cause of death from chloroform is not held by good physiologists. Mr. Coates makes out five causes. Mr. Coates says, too, ether is much more dangerous than chloroform. The subject is one of vast popular interest."

STRUMOUS ABSCESSES TREATED BY VACCINATION.—Dr. Graves proposes the influence of a counter inflammation of the vaccine pustule for the removal of strumous abscesses. The following case illustrates his plan of operation: "In January, 1857, A. B., a mill worker, aged fourteen, of strumous habit, applied at the Cookstown Dispensary, suffering from an abscess of the cervical gland on the right side of the neck, about the size of a nutmeg. The skin was but slightly discolored, but fluctuation evident. I gave exit, by a free incision at the lowest part, to a small quantity of matter; then charging my lancet with cowpox infection, introduced it in the usual way, by a few slight scratches at either side of the wound, taking care that it should come as little as possible in contact with the discharge from the wound. On the eighth day it had evidently 'taken' well; there was the well-marked inflammation surrounding the vesicles. 'On the ninth,' as Maunsell and Grandson describes it, "there was formed round the base an inflamed ring, with an areola of an inch and a half or two inches in diameter.' In this case the redness was more extensive. On the *twelfth,* there was considerable inflammation and hardness all over the surface of the tumor, and very little discharge from the original opening. On the *sixteenth,* this had in a great measure disappeared, and when, in about three weeks afterward, the girl called upon me, the crust had dropped off, there was no trace of the abscess, and very little more scar than is left after an ordinary vaccination. I should mention that this patient had not been vaccinated."—*Dublin Hospital Gazette.*

Vital Statistics Briefly Stated.—The *New York Magazine* contains the following summary of vital statistics, pregnant with interesting details, somewhat roughly, but, in the main, correctly stated:—"The number of men is about equal to that of women. The average of human life is 33 years. One quarter die before the age of 7; one half before the age of 17; To every 1000, only 1 reaches the age of 100 years. To every 100, only 6 reach 75 years; and not more 1 in 500 will reach 80 years. There are on the earth 1,000,000,000 of inhabitants. Of these, 33,333,-

333 die every year; 91,824 die every day; 7780 every hour; and 60 per minute, or 1 every second. These losses are balanced by an equal number of births. The married are longer lived than the single; and, above all, those who observe a sober and industious conduct. Tall men live longer than short ones. Women have more chances of life previous to the age of 50 years than men, but fewer after. Births and deaths are more frequent by night than by day. Those born in spring are generally more robust than others."

ON THE OPIATE TREATMENT OF RHEUMATIC FEVER.—By R. W. O'DONOVAN, Belturbet. (The Dublin Quarterly Journal of Medical Science, May, 1858.)—The opiate treatment of rheumatic fever, though not new in medical practice, is shown by Mr. O'Donovan to have been very successful in seven cases which he records. The opium was the chief remedy employed in all the cases, a little castor-oil being sometimes given to obviate constipation, and in some instances soothing liniments were applied to the joints, and quina was adminstered internally. Mr. O'Donovan commenced with a full dose of opium—namely, two grains every second or third hour, till the pain was relieved and the patient slept, or at least until he felt easy and composed; and headache was never observed. The opium treatment shortens the duration of the disease, as was proved by one of the cases in which the disease had lasted for thirteen weeks without mitigation, but in which, under the use of opium, relief was obtained in two days. In another case, the opium was commenced on the sixth day of the illness, and convalesence was established in four days afterwards. Another case was convalescent in four days, and a fourth was relieved in seven days. Mr. O'Donovan also found that the excessive sweating, characteristic of the disease, yielded to opium.

The Passing Wind of Bullets.—A Russian *savant*, M. Pelikan, has made some sufficiently curious observations upon the supposed contusions produced by the “wind” of passing balls. The existence of this kind of lesion has been admitted by some surgeons, and denied by many others. M. Pelikan addressed himself to the Committee on Artillery of St. Petersburg, and having obtained some pieces of large calibre, had a machine constructed for measuring the force exerted by the wind of balls passing at various distances. The results obtained were constantly the same. At the distance of three inches, a passing ball produced not the slightest effect. The conclusions deduced by M. Pelikan, are :—1. A projectile passing very close to any object exercises only an insignificent influence upon it. 2, That what is called the wind of the ball, even with a full charge of powder, has so trifling a force as to be incapable of determining any lesion.

Statistics on excision of the knee-joint.—This operation was lately mentioned at a meeting of the Surgical Society of Paris ; and doubts respecting its efficacy were raised by Messrs. Marjolin, Robert and Larrey. Thereupon M. Giraldès set about collecting the cases which have hitherto been published, and presented the following figures :

From 1762 to 1858, the operation was performed 127 times ; it proved fatal in 33 cases. The operations may be divided into the following series :

1st	series	from	1762 to 1830,	19	operations,	12	deaths.
2nd	“	“	1830 to 1854,	31	“	5	“
3rd	“	“	1854 to 1856,	51	“	9	“
4th	“	“	1856 to 1858,	26	“	7	“

Out of the 31 patients of the 2nd series, 17 have recovered with a perfect use of the limb.

NEW ORLEANS

Medical News and Hospital Gazette

VOL. VI. MAY, 1859. NO. 3.

CLINICAL REPORT ON CASES OBSERVED AT THE NEW ORLEANS CHARITY HOSPITAL, 1858-9.

By AUSTIN FLINT, M. D., Prof. Clinical Medicine, etc., N. O. School of Medicine.

PNEUMONIA.

Under the above caption, in accordance with the wishes of the editors of the *Medical News and Hospital Gazette*, I propose to give in successive numbers of this journal, some account of my clinical observations at the Charity Hospital during the College session for 1858-9. My service at the hospital commenced on Nov. 27th, 1858, and continued for three months. It embraced two male wards, each containing fifteen beds. It rarely happened that there was a vacant bed in either ward, and not unfrequently, temporary accommodations were made for an additional number of patients on the floor. The average number of cases under daily observation, therefore, was somewhat over thirty. The majority of patients were affected with acute diseases, including in this category, the periodical and continued fevers. Patients were always discharged as soon after convalescence as their condition rendered it safe and proper for them to leave the hospital. Chronic cases, in many instances, did not remain long under observation, the patients sometimes preferring to leave, and sometimes being advised to do so, the prospect of improvement being considered to be better without than within the hospital wards. The service, therefore, in prôportion to the number of beds, was quite active, the daily admissions ranging from four to eight.

It may not be amiss to state the plan of clinical instruction which was pursued. The regular daily visit was at 8 o'clock, A. M. The wards of this hospital being free at all times, to any who choose to frequent them for clinical study, medical students and practitioners who were so disposed, attended at the morning visit, witnessing the examination of newly received patients, with reference to the diagnosis, and observing, from day to day, the symptoms incident to the course of disease, together with the therapeutical measures employed in all the cases. Clinical remarks were made at the bedside; but on Wednesdays and Saturdays, after the morning visit, a clinical lecture was given in the college amphitheatre, on the cases under observation in the hospital wards. At these lectures the diseased organs, in fatal cases, were exhibited to the class. During the three months' service, the more important of the diseases which occur in general practice were studied at the bedside, and discussed in the lecture room.

Daily records were made of all the important cases. The greater part of this labor was performed by myself, but I was aided here, as well as in other duties connected with the service, by my clinical assistant, Mr Gustavus Devron, to whom I am under much obligation for his assiduity and fidelity; and I avail myself also of this opportunity of expressing my acknowledgments to Messrs. Holt, Mercer, Smyth, Stone, and other of the resident students of the hospital, for valuable assistance in my clinical pursuits.

I have selected, as the subject of this paper, the cases of *pneumonia* received into my wards during my term of service. The number of cases observed is fifteen. Full notes were taken of all these cases. I shall give a condensed summary of the history of each case, presenting some of the more important points, and omitting details which are unimportant to my present purpose, which is, not to contribute material toward extending our knowledge of the symptomatology of pneumonia, but to select from the notes of the cases, respectively, sufficient of the signs and symptomatic phenomena to show that the diagnosis was correctly made, and to give a general idea of the severity of the disease in the individual cases, its association in some instances with other affections, and to specify the remedies employed in each case.

After giving, thus succinctly, the histories, I shall offer certain conclusions and general remarks based on the clinical study of these cases. In sketching the histories, I shall enumerate the cases in the order of their occurrence. I may mention, in advance, that all the cases actually observed, ended in recovery. A single case of pneumonia, only, ended fatally, and in this instance the patient was admitted *in extremis,* and died before my visit on the following morning. This case, in reality, did not come under my observation prior to the autopsy.

CASE.—*Pneumonia affecting lower lobe of left lung. Seventeen days in Hospital.*

Thos. Corrigan, aged 37, Irish, laborer, admitted Nov.

18th. Had intermittent fever last summer. Confined to bed two weeks before admission.

Physical signs: Marked dullness on percussion over lower lobe of left lung. Respiration over this lobe bronchial and broncho-vesicular. Bronchophony, and the bronchial whisper intense and acute over this lobe. True crepitant and the sub-crepitant räles. Friction found over upper lobe of left lung. Over this lobe vesiculo-tympanitic percussion-sound.

No febrile movement; respirations 20.

Treatment. Sulphate of quinia, grs. v, three times; brandy, ℥ii, three times, and nutritious diet. The quinia apparently caused vomiting, and was supended on the second day, the sulphate of morphia, gr. ¼, three times, being substituted. The morphia was continued for three days only, and the subsequent treatment consisted solely of brandy and nourishment.

At the time of his discharge, the disparity between the two sides, as regard physical signs, was very slight.

Case II.—*Pneumonia affecting the lower lobe of right lung, complicating Typhoid fever. Twenty-two days in Hospital.*

Peter Boyle, aged 25, admitted 17th November. Had taken to the bed two days before his admission. He presented the symptoms diagnostic of typhoid fever; the eruption appeared on the 25th of November. On the 26th, the physical signs denoted pneumonia affecting the lower lobe of the right lung. The disparity between the two sides, as regards the resonance on percussion was marked. The auscultatory signs of solidification, viz: bronchial respiration, bronchophony, and the bronchial whisper, were not strongly marked. The grade of the typhoid fever was mild. The treatment consisted of small doses of the sulphate of morphia to allay cough; milk punch and nutritious diet.

The patient was discharged quite well, Dec. 9th.

Case III.—*Pneumonia affecting lower lobe of right lung. Nine days in Hospital.*

Louis Cussy, Frenchman, aged 42, admitted Nov. 20. Took to the bed the day before his admission, but had had cough for a week. Three weeks before his admission he had intermittent fever, at first of the quotidian, and afterward of the tertian type. The last paroxysm was twelve days before his admission. The expectoration was small, adhesive, rusty; pulse 92; respirations 20. Circumscribed flush of right cheek.

Physical Signs. Notable dullness on percussion on the right side, bounded by a line coincident with the lower interlobar fissure. Bronchial respiration wanting. Crepitant râle. Soft, rubbing friction-sound below line of interlobar fissure in front and behind. Well marked bronchial respiration, bronchophony and the bronchial whisper were not, at any time, marked in this case.

Treatment. The sulphate of quinia, gr. v, three times daily, was continued for four days; and the sulphate of morphia, gr. ¼, three times daily. This, with brandy ℥ii, three times daily, and nutritious diet, constituted the treatment.

When discharged, Dec. 1st, the respiratory murmur was developed and vesicular over the affected lung, but an obvious disparity on percussion continued.

The patient, as I afterward learned, was quite intemperate, and he was discharged, although still weak, at his urgent request.

CASE IV.—*Pneumonia affecting the upper lobe of the left lung, in a patient recently discharged convalescing from pneumonia affecting the lower lobe of the right lung* (*Case* 3). *Death fifteen hours after admission.*

Louis Cussy, the same patient as in No. 3, was admitted Dec. 13th, thirteen days after his discharge, with pneumonia affecting the upper lobe of the left lung, and died during the night. The patient was not seen by me, but was examined by Dr. Alston, of Texas, and other members of my private class, and the existence and seat of the disease determined by the physical signs.

On examination after death, the upper lobe of the left lung was enlarged in volume and completely solidified; inelastic, non-crepitant, undergoing no change on inflation, sinking in water, anæmic, granular—in short, presenting all the anatomical characters distinctive of the second stage of pneumonia, with slight exudation of lymph on the pleural surface.

The lower lobe of the left lung was œdematous, serous liquid, scarcely spumous, escaping in abundance on section, but no solid or granular deposit.

It was ascertained that the patient, after his discharge, had indulged in excessive drinking. On the day of his death he walked three miles to enter the hospital.

This case illustrates the recurrence of pneumonia in another lobe, and, in fact, the opposite lung; not in the portion previously affected, which it might be supposed, *à priori*, having been so recently affected, would be thereby rendered liable to a renewed attack of inflammation. The patient was affected with two distinct attacks of pneumonia, there being no pathological connection between the two attacks other than that both probably involved the same internal and external causative conditions.

Case V.—*Pneumonia affecting the lower lobe of right lung. Eight days in Hospital.*

John Martin, aged 30, Irishman, laborer, admitted Nov. 22d. Patient accustomed to drink rather freely. Had been attacked eight days before with chill, pain in right side, cough and bloody expectoration. Took at once to the bed, but after the first day sat up a portion of the time.

Cough and expectoration, at the time of his admission, slight, the matter expectorated being muco-purulent. No febrile movement, and the respirations 20. Slight circumscribed flush of right cheek.

Physical Signs. Marked dullness on percussion within the limits of lower lobe of the right lung. Over the upper lobe of the right lung the percussion sound vesiculo-tympanitic. Crepitant râle. Respiratory sound over the affected lung feeble and broncho-vesicular. Well marked bronchial respiration not present. Bronchophony also wanting. Tolerably intense and acute bronchial whisper.

Treatment. The patient having formerly had intermittent fever, the sulphate of quinia, gr. v, three times daily, was continued for several days, with brandy, ℥ii, three times daily, and nutritious diet. This constituted the treatment, with the exception of castor oil on the day before his discharge.

Discharged quite well, Nov. 29th.

CASE VI.—*Pneumonia affecting the lower lobe of the right lung. Complicating Typhoid Fever of severe grade. Slow resolution of pneumonic solidification.*

Henry Corcoran, Irishman, laborer, aged 28, admitted November 24th.

He had taken to the bed four days before his admission, having, at that time, lancinating pain referred to the right lateral surface of the chest, with cough.

At the time of his admission he had cough with adhesive, semi-transparent and slightly rusty expectoration.

The *physical signs* were, marked dullness on percussion over the lower lobe of the right lung; crepital râle; a feeble, acute bronchial whisper. Well marked bronchial respiration and bronchophony were not developed in this case.

The patient presented all the diagnostic characters of typhoid fever, inclusive of the eruption. The latter affection was of a low and severe grade, the pulse frequent and feeble; muttering delirium with efforts to get out of bed: dejections in bed; carphologia, subsultus, etc.

The *treatment* consisted of the free administration of alcholic stimulants, essence of beef and milk for diet, and small doses of the sulphate of morphia. The patient was convalescent Dec. 4th, fourteen days from the time of taking to the bed; the convalescence, however, was slow, being retarded by sloughing over the hips and sacrum.

The resolution of the pneumonia was tardy, but equality of the two sides over the lower lobe was nearly restored, as regards percussion and auscultatory signs, by Jan. 1st.

The patient remained in hospital at the end of my service, having gained progressively in flesh and strength, but affected with dry cough, accompanied with dullness on percussion at the right summit of the chest. The latter, existing without a corresponding disparity in the auscultatory phenomena, was attributed to enlargement of the bronchial glands incident to typhoid fever.

CASE VII.—*Pneumonia affecting the lower lobe of the right lung. Twelve days in Hospital.*

Joseph Clark, aged 27, English, laborer, admitted November 24th.

He had been confined to the bed for six days prior to his admission. At the time of his admission, the expectoration was semi-transparent, adhesive and rusty. Pulse 80; respiration 20.

Physical Signs. Marked dullness over the lower lobe of the right lung; crepitant râle with the few first inspirations; the respiration extremely feeble, so that its character could not be satisfactorily studied; feeble but acute bronchial whisper. Over the upper lobe of the right lung, the percussion-note sonorous and vesiculo-tympanitic.

The treatment at first consisted of opium, gr. ii, every four hours, with nutritious diet. The quantity of opium in two days was reduced to gr. i, and the sulphate of quinia, grs. ii, added. These remedies were discontinued six days before the patient was discharged.

When discharged, Dec. 6th, slight disparity on percussion existed over the lower lobe, but all pulmonary symptoms had ceased.

CASE VIII.—*Pneumonia affecting the lower lobe of the right lung. Fifteen days in Hospital.*

George Nelson, aged 24, American, admitted Nov. 29th. Had had cough with pain in the side for three days, but did not take to the bed prior to his admission.

The expectoration was adhesive and muco-purulent. From his description it had been rusty before his admission. Pulse 76; respiration 28.

Physical Signs. Marked dullness on percussion over the lower lobe of right lung; crepitant râle, abundant and diffused; bronchophony and bronchial whisper acute and tolerably intense. Well marked bronchial respiration not developed in this case.

The treatment consisted of opium, grs. ii, three times daily, and nutritrious diet. This was continued for seven days. No medicine afterward.

The patient was discharged, quite well, Dec. 14th.

CASE IX.—*Pneumonia affecting the upper lobe of the right lung. Thirteen days in hospital.*

Michael Henney, aged 35, laborer, admitted Dec. 1st. He had been ill for two and a half months, and so far as the previous history could be obtained, taking into view the present signs, it appeared that he had had intermittent fever, and pneumonia affecting the lower lobe of the right lung.

The *physical signs* denoted consolidation of the upper lobe of the right lung. Marked tympanitic, i. e., non-vesicular sonorousness existed in front above the fourth rib and in the upper scapular space behind. Crepitant râle in the latter situation, and sub-crepitant râle in front. Bronchial respiration not well marked, but bronchophony tolerably strong, and the bronchial whisper intense and acute. Relative dullness and a feeble vesicular murmur over the lower lobe of the right lung.

The expectoration quite copious, a portion muco-purulent, and the remainder semi-transparent, adhesive and rusty. Pulse 88; respiration 20.

Treatment. Sulphate of quinia, grs. v, and opium, gr. i, three times daily. The opium was afterward increased to grs. ii, three times. On the 5th day, the quinia was discontinued, and the sulphate of morphia given in doses of gr. ¼, three times daily, with brandy, ℥vi, three times, and nutritious diet.

On the ninth day medicine was discontinued, full diet continued, and on the thirteenth day (Dec. 13th), the patient was discharged, slight dullness remaining over the upper lobe of the right lung, but the respiratory murmur well developed and vesicular.

CASE X.—*Pneumonia affecting the lower lobe of the left lung; the inflammation subacute. Six days in hospital.*

Lorentz Egert, German, aged 45, laborer, admitted Dec. 7th. Had been ill three days before his admission. The symptoms belonging to the previous history are not noted. He presented marked circumscribed flush on both cheeks; cough and expectoration slight, and the characters of the latter not observed; respirations 16, and pulse 74.

Physical Signs. Well marked dullness on percussion over the lower lobe of the left lung. Distinct and abundant crepitant râle. Bronchial respiration wanting. Vocal resonance greater over the lower lobe of the left than right lung; moderately intense and acute bronchial whisper.

Treatment. Opium, grs. ii, three times daily, and nutritious diet.

The patient was discharged on Dec. 13th, being free from cough; slight relative dullness remaining over the affected lobe, the respiratory murmur feeble, but vesicular, with an occasional sub-crepitant râle.

Case XI.—*Pneumonia affecting the upper lobe of the right lung. Twelve days in hospital.*

John Lavell, aged 40, Irish, laborer, admitted Dec. 14th. The patient had not been well for ten months before his admission, having been affected with intermittent fever. The date of the existing pneumonia does not appear in the record of the previous history.

The expectoration at the time of his admission, was abundant, semi-transparent, adhesive, and had a yellow tint. Pulse 80; respirations 22.

Physical Signs. Notable dullness with tympanitic quality of sound on percussion on the right side extending in front from the summit to the lower margin of the third rib, and in the upper scapular space behind. Over the lower lobe of the right lung the sonorousness greater than on the left side, and the quality vesiculo-tympanitic. Well marked bronchial respiration over the upper lobe of the right lung in front and behind, with bronchophony and an acute bronchial whisper. The respiratory murmur over the lower lobe of the right lung more intense than on the left side and equally vesicular.

Treatment. Sulphate of quinia, grs. v, and opium, grs. ii, three times daily, were continued for five days. The opium was then discontinued, and the quinia continued in doses of three grains, three times daily, with milk punch and full diet.

The patient was discharged, Dec. 26th, reporting quite well, relative dullness existing at the summit of the chest on the right side, but the respiratory murmur well evolved and vesicular, the bronchophony and acute broncial whisper having disappeared.

Case XII.—*Pneumonia affecting the lower lobe of the left lung. The patient tuberculous. The pneumonia developed in hospital.*

Bryan Campbell, aged 20, Irish, gardener, admitted December 20th.

Cough had existed for two years, and he had had repeated attacks of hæmoptysis. The physical signs denoted a considerable deposit of tubercle at the summit on the right side.

Eight days after his admission the expectoration became adhesive and hæmorrhagic. Respirations 30; pulse 115.

Physical Signs. Marked dullness over the lower lobe of the left lung. Crepitant râle. Weak bronchial respiration and bronchophony over this lobe.

January 27th, the dullness and auscultatory signs of solidification of the lower lobe of the left lung had disappeared. The signs of tuberculous solidification at the summit on the right side continue.

Treatment. Prior to the development of the intercurrent pneumonia, the patient was placed on the hypophosphite of soda, ℈i, three times daily, small doses of the sulphate of morphia, milk punch and full diet. No change in the treatment was made during the continuance of the pneumonia.

After recovering from the pneumonia, the patient desired to leave the hospital and was discharged. In a few days, however, he returned, finding that he had not breath enough to work, and he remained in hospital when my term of service ended, his condition being about the same as before the attack of pneumonia.

Case XIII.—*Pneumonia affecting the lower lobe of the left lung. Delirium tremens. Sixteen days in hospital.*

William Coughlan, aged 29, Irish, laborer, admitted December 26th. He was attacked with cough, etc., on the 22d, and took to the bed on the 23d.

Expectoration semi-transparent, adhesive and rusty. The pulse 120; respirations 40. Lancinating pain referred to the lower anterior portion of the left side of the chest.

Physical Signs. Notable dullness over the lower lobe of the left lung. Feeble crepitant râle. Bronchial respiration well marked, with intense bronchophony and an acute bronchial whisper. Percussion-sound vesiculo-tympanitic over the upper lobe of the left lung.

Treatment. Opium, grs. ii, three times daily. On the 28th the opium was increased to grs. iii, every six hours. On the 29th the pulse was 100, and the respirations 24. The treatment of the 28th was continued, with milk punch and the essence of beef and milk for diet.

Delirium was manifested on the 29th. It increased on the 30th, and presented the characters of delirium tremens. During the night of this date and the succeeding night, he was strapped to the bed by order of the captain of the night watch, as is usual in this hospital in such cases. The pulse fell to 80, and the respirations to 20. The physical signs denoted diminished solidification of the affected lung. The treatment now consisted of the sulphate of morphia, grs. ss, every four hours, and brandy, ℥ii, hourly, with essence of beef for diet.

Sleep occurred on January 1st. The brandy and morphia were continued in diminished doses.

January 3d, the patient was convalescent, the bronchial respiration and bronchophony having disappeared.

January 11th he was discharged, quite well.

CASE XIV.—*Pneumonia affecting the lower lobe of the left lung. Delirium tremens. Ten days in hospital.*

Nicholas, aged 27, boatman, admitted Jan. 25.

He was attacked suddenly with pain in the side and cough, on the 18th of January, and at once kept the bed. He continued to drink spirits freely after the attack, up to the time of his admission.

Delirium was manifested on the second night after his admission. It assumed the character of delirium tremens the day following.

Expectoration small, adhesive, and deeply rusty. Pulse 100; respirations 28.

Physical Signs. Notable dullness over the lower lobe of the left lung. Intense bronchial respiration; marked bronchophony and the bronchial whisper intense and acute. Vesiculo-tympanitic resonance over the upper lobe of the left lung. Crepitant râle.

Treatment. At first, opium, grs. ii, three times daily, and brandy, ℥ii, every three hours. The third day, the sulphate of morphia, gr. ss, every four hours, and brandy, ℥ii, every two hours, with essence of beef for diet. On the fourth day the delirium continued, and the sulphate of morphia, in doses of gr. i, was prescribed, and brandy, ℥ii, every two hours, with essence of beef. Six grains of the morphia were given between 9, A. M. and 11, P. M. He was strapped to the bed all night by direction of the captain of the night watch. During the night, brandy, ℥ii, hourly, was given. He slept during the latter part of the night, and was quiet in the morning, taking food with relish. Pulse 100; respirations 16.

The morphia and brandy were continued in small doses, and he convalesced immediately.

The bronchial respiration and bronchophony were absent on examining the chest after the delirium ceased, showing the rapid resolution of the lung notwithstanding the delirium.

Medicine was discontinued on Jan. 31st, and the patient was discharged, quite well, Feb. 4th.

Case XV.—*Pneumonia affecting the lower lobe of the left lung, with an abundant liquid effusion into the pleural sac.*

William O'Neil, aged 24, Irish, laborer, admitted January 27th. He was attacked suddenly the day before his admission, with acute pain in the side. Slight cough had existed for two days prior to the attack.

The acute pain continued at the time of his admission, referred to the neighborhood of the nipple, and extending to the base of the chest, in front on the left side. Expectoration small, rusty, and adhesive. Respirations 50, the inspiration abruptly arrested on account of pain. Pulse 100.

Physical Signs. The right side presenting the superior and inferior costal movements marked, while the left side is nearly motionless. Clear percussion resonance on both sides in front; the respiratory murmur intense on the right, and quite feeble on the left side. Marked dullness on percussion over the lower lobe of of the left lung, and a feeble crepitant râle. The respiratory sound not sufficiently developed over this lobe to study its characters. Weak bronchophony over this lobe and an acute bronchial whisper.

The day following, the acute pain had ceased. Marked dullness over the lower lobe of the left lung continued, and feeble bronchial respiration was discovered. In front dullness on percussion, extended upward above the interlobar fissure to the third rib, in the sitting posture, and variation of the upper limit of this dullness with change in the position of the patient was observed. Tympanitic sonorousness above the level of the liquid. Pulse 96; respirations 28.

Treatment. Opium, grs. ij, every four hours.

Jan. 30th. The physical signs remained the same, and the treatment was continued, brandy, ℥ii, every four hours being added, with essence of beef for diet.

Jan. 31st. The level of the liquid lowered an inch, the patient in a sitting posture. The bronchial respiration and bronchophony more marked over the lower lobe of the left lung. Percussion-resonance, vocal-resonance, the respiratory murmur and vocal fremitus all showed the expansion of the upper lobe as low as the nipple. Pulse 88; respirations 24.

Treatment continued.

Feb. 1st. The signs of expanded lung extend to the situation of the interlobar fissure in front. Bronchial respiration and bronchophony continue over the lower lobe of the left lung.

Same treatment.

Feb. 2d. The bronchial had given place to the broncho-vesicular respiration, and the bronchophony to increased vocal resonance, over the lower lobe of the left lung. Cough and expectoration slight. Pulse 56. No dejection for a week.

Treatment: castor oil.

From this date the patient could be regarded as convalescent. He sat up a little on the day following. The physical signs denoted progressive and rapid resolution of the consolidation of the inflamed lobe; the cough and expectoration ceased, but the patient complained of soreness on the left side, for which a belladonna plaster was prescribed. At the end of my term of service, Feb. 13th, he had been designated to stand on watch four hours during the night, and was about ready to be discharged.

The rapid removal of the effused liquid, as well as the solid exudation, under the treatment pursued, is to be noted in this case.

Lest the reader may infer that the brief account which has been given of the foregoing cases represents the extent of the records at the bedside, I repeat that my present object, aside from the treatment, is simply to introduce details to constitute sufficient evidence of the diagnosis (assuming accuracy on the part of the observer), and to give a general idea of the severity of the individual cases derived from the intrinsic intensity of the disease, and association with other affections.

CONCLUSIONS AND REMARKS.

Of the fifteen cases, in all the pneumonia was limited to a single lobe. In one instance two lobes were successively attacked (cases 3 and 4), recovery from the first attack having taken place befere the second occurred. This was probably true in another instance (case 9). The lower lobe was the seat of the disease in all save two cases. In one of these (case 4), the lower lobe had been previously affected, and this was probably true of the other instance (case 9).

Of the thirteen cases in which the lower lobe was affected, the disease was seated in the right side in seven, and in the left side in six.

The pneumonia was primary in twelve of the fifteen cases. Of the three instances in which it was developed secondarily, it occurred as a complication of typhoid fever in two, and as an intercurrent affection in pulmonary tuberculosis in one instance.

In the twelve primary cases, the disease was uncomplicated in all but three instances. Delirium tremens was developed as a complication in ten cases; and in one instance, pleuritis with considerable liquid effusion coëxisted. More or less pleuritis is almost uniformly present in cases of pneumonia, but it is certainly rare for the pleuritis, under these circumstances, to be attended by much effusion.

The ages of the patients varied between 20 and 45, the mean age being about 30. In nearly every instance the patients were robust, and in good health when attacked with the disease. Several were intemperate, and several were subject to attacks of intermittent fever.

Exclusive of three cases remaining in hospital at the end of my term of service (two of these remaining with other affections), and of the case which ended fatally, the length of stay in hospital varied from six to twenty-two days; the mean period being a fraction over thirteen days.

A fatal result occurred in one case only. In this case, as already stated, the patient had been discharged a few days before, convalescent from an attack of pneumonia affecting the lower lobe of the right lung. He resumed his habits of intemperance directly he was discharged, and was seized a second time with pneumonia, now affecting the upper lobe of the left lung. He walked to the hospital, a distance of three miles, after being attacked, and died by asthenia, fifteen hours after his admission, without coming under my observation.

Convalescence was rapid in all instances, save one in which the pneumonia occurred as a complication of typhoid fever. Exclusive of this instance, the resolution of the affected lung, as shown by the disappearance of the physical signs denoting solidification, was rapid. The resolution was in all instances complete, slight relative dullness on percussion only remaining, which, as is well known, persists for some time after recovery from pneumonia. In all instances the symptoms of the disease, viz: cough, expectoration, etc., completely disappeared. In no instance were the patients left enfeebled, but at the time of discharge they all reported themselves able to return to their avocations, and the majority were day laborers.

The treatment pursued in these cases, as the reader has doubtless remarked, was not complex. The sulphate of quinia was given, in tolerably full doses, in the cases in which intermittent fever had previously existed. This remedy was not prescribed with special reference to the pneumonia, but in order to forestall the development of intermittent fever as a complication. Quinia has been extolled as a valuable remedy in pneumonia, irrespective of the liability of the disease to become complicated with intermittent fever if the patient reside in a malarious section, and, especially, if he has been subject to attacks of the latter affection. However this may be, it is certain that the remedy, given in full doses, does not exert an unfavorable influence on the progress of the pneumonia. It is not contra-indicated by this affection. To prevent the development of intermittent fever, and, if developed, to arrest the paroxysms as speedily as possible, are important objects of treatment in certain cases of the disease under consideration. The combination of the two affections often places the patient in imminent danger, when with either affection, singly, his condition would not be serious. Happily, under these circumstances, we possess a special remedy by which we may expect to control one of the affections. This, then, is the leading indication, and the life of the patient may depend on its being promptly and effectively fulfilled. The practitioner who gives precedence to indications derived from the pneumonia, under these circumstances, or who so divides his attention as to fulfill incompletely the leading indication, commits an error which may be fatal to the patient. As a rule, it is well to recognize, at the commencement, a liability to this complication, and to forstall its occurrence, especially when the protective remedy, to say the least, does not interfere with the favorable progress of the pneumonia.

Opium entered more or less into the treatment of these cases. My observations have led me to regard this as a valuable remedy in pneumonia. As a palliative of pain, it fulfills an important indication; for pain, in addition to the suffering which it occasions, determines an afflux of blood to the painful part. This fact is illustrated in neuralgia affecting the supra orbital nerve. During the paroxysm of pain, the eye becomes injected, and the redness rapidly disappears after the pain has been relieved by an opiate. But there is reason to believe that opium exerts a salutary effect beyond the relief of pain. I have repeatedly noted marked diminution in the frequency of the pulse and respirations, in cases of pneumonia, a few hours after the patient had taken full doses of opium. It appears to lesson the perturbatory effects in the economy of the local inflammation, if, indeed, it does not diminish the intensity of the inflammatory action. Some practitioners are deterred from the use of this remedy in pneumonia, by the idea that it interféres with the removal, by expectoration, of the exuded products of inflammation. But how often do we observe the rapid disappearance of the solidification in pneumonia, with slight expectoration, or none whatever! The intra-vesicular exudation is, for the most part, absorbed, not expectorated, a fact not strange when the structure of the cells, and the facility of endosmosis in this situation are considered. Interference with expectoration, therefore, if true with respect to the employment of opium in pneumonia, is not a valid objection. The merits of the remedy, however, in this application, must rest on clinical experience; and I cannot but think that this paper will be of some utility, should it serve to remove from the minds of some readers, groundless apprehensions with respect to the free use of opium in pneumonia.

Alcholic stimulants were employed, to a greater or less extent, in the treatment of these cases, and in all the cases the patients were placed on a nutritious diet. The abstract notion that stimulants and sustaining food are inconsistent with the treatment due to local inflammation, is a remnant of Broussaism which still exerts considerable influence on medical practice. It suffices to destroy this notion, to bear in mind the significant injunction of Chomel, viz: "*not to treat diseases, but to treat patients affected with disease.*" With regard to stimulants, it may be stated, as a rule, that they are indicated in cases of local inflammation, whenever the patient in health is addicted to their use. They cannot with safety be withheld under these circumstances, if the local inflammations involve, from its seat or intensity, danger to life. But without reference to previous habits, the use of stimulants in the treatment of pneumonia, and of other local inflammation, is important in proportion as it becomes an indication to support the powers of the system. It is, perhaps, an error in medical practice as common, and as serious as any, to overlook or depreciate this indication in the management of local diseases. Practically, the existence of this indication and its urgency, in individual cases, may be brought clearly and forcibly before the mind by proposing, at the bedside, the following questions: Is the patient in danger of death? If death occur will it take place by asthenia? How imminent is the danger of death by asthenia? Whenever, in the management of disease, the physician has reason to fear that he may lose his patient by asthenia, and in proportion to the tendency to a fatal result by that mode of dying, alcoholic stimulants, as a rule, form an important part of the measures indicated, on the same ground that they enter into the treatment of fevers. And this remark applies eqally to nutritious diet, viz: the animal essences, etc. Cases of pneumonia occur in which patients are to be saved by pursuing, boldly and perseveringly, the supporting treatment precisely as in cases of low typhus or typhoid fever. And the indications for this plan of treatment may be present early, as well as late in the progress of the disease. The union of delirium tremens, with pneumonia, for example, often places the patient in imminent danger of death by asthenia. The free use of stimulants and concentrated nutriment, is requisite to carry him safely through the perils of this combination. Two of the cases included in the present collection (Nos. 13 and 14), illustrate this remark.

But even when the danger to life is not great, it is an object to support the system with the view to a speedy and rapid resolution of the inflammation. Alcoholic stimulants may not be required for this object, but it will be promoted by a nutritious diet. The fear of feeding the disease by feeding the patient, is a vulgar notion not warranted by clinical observation. I do not hesitate to allow patients to take food as nutritious in quality and as freely as they desire. The late Dr. Graves was so impressed with the importance of supplying the system with nourishment in febrile diseases, that he desired to be placed as an epitaph on his tomb, "he fed fevers." He might have extended the circle of diseases in which feeding is important. It is hardly less important, in some instances, speaking metaphorically, to feed pneumonias, than to feed fevers, and, indeed, feeding, as an essential element of supporting treatment, is important in any disease when it is an indication to obviate the tendency to death by asthenia.

With regard to the time when an active supporting plan of treatment (stimulants and concentrated nutriment) is indicated, and the extent to which it is to be carried, I will make but a single additional remark. If there be room for doubt on these points, it is better to err by commencing too soon, and pushing it too far, than by delay and insufficiency; for while it is as easy to discontinue or diminish supporting measures before much if any actual harm is done, time which has been lost cannot be recovered.

Quinia, opium, alcoholic stimulants and nutritious diet, constituted the treatment in the cases embraced in this report. The grounds for the non-employment of certain therapeutical measures, in these cases, are now to be considered. Blood-letting, general and local, tatar emetic, the veratrum viride, mercury, cathartics, blisters and other modes of counter-irritation are employed, to a greater or less extent, in the treatment of pneumonia. None of these remedies, however, entered into the treatment of these cases. This fact, without explanation, might lead to erroneous inferences as regards the views of the writer.

Blood-letting in pneumonia has, of late, been much discussed. I have contributed my mite towards this discussion,[*] and do not propose to enter upon it in this paper. I will simply remark that, in my opinion, it is an error to assume blood-letting to be never useful in pneumonia, albeit it is a far greater error to advocate the indiscriminate employment of this spoliative measure in that affection. The propriety of blood-letting, however, is rarely a question in hospital cases of pneumonia. In the great majority of instances when patients are admitted into a hospital, the disease has advanced to the second stage; one or more lobes are solidified, and, under these circumstances, the abstraction of blood will, in general, only tend to retard resolution. Had these cases been under observation from the commencement of the disease, it is possible that blood-letting might have been indicated in some instances, not with a view to arrest the inflammatory action, nor to limit its extent, nor to lessen the amount of exuded products; but to diminish the intensity of symptomatic febrile movement, relieving the heart of over accumulation of blood in its cavities, and consequent overtasking of its powers. With this limited view of blood-letting, making due allowance for its evils, it is indicated in only a small proportion even of the cases of pneumonia which come under observation at the onset of the disease.

The tartar emetic and veratrum viride undoubtedly control, in a marked degree, the frequency of the heart's action, and, so far diminish, for the time, symptomatic febrile movement. It remains, however, to be determined, to what extent this effect is important with reference to the inflammatory process and resolution. We can at this day understand how Lænnec was deceived in attributing the rapid removal of the exudation in pneumonia to the influence of tartar emetic; for it had not then been observed, as it has been since his day, that the exudation disappears, in some instances, quite as rapidly without any treatment. These cardiac sedatives, if useful when the symptomatic febrile movement is intense, are certainly not indicated when the action of the heart is but slightly or moderately increased, as in a pretty large proportion of the cases of pneumonia in which the affection is limited to a single lobe, especially after exudation has taken place.

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[*] Report on Blood-letting in Pneumonia, Buffalo Medical Journal, Vol. xi. 1856. Page 288.

The action of mercury has been considered as useful in two ways in pneumonia, viz: limiting the amount of exudation and promoting its absorption. With reference to the first of these supposed effects, the exudation in pneumonia generally takes place, to its fullest extent, before mercurialization can be produced. With reference to the second effect, the exudation is absorbed, in favorable cases, quite rapidly without mercurialization. Without, therefore, presuming to deny altogether the so-called anti-plastic and the sorbefacient powers of mercury, I believe that it is a remedy generally uncalled for in the treatment of pneumonia. The occurrence of salivation at the time of convalescence, is, to say the least, an inconvenience which, if not necessary, it is desirable to avoid. Having for many years relinquished the use of this remedy with reference to its special or constitutional effects in treating this disease, I am satisfied that it may with safety and advantage be dispensed with.

Cathartics, as a means of depletion during the early stage of pneumonia, may be indicated. If adequate to fulfill the object of depletien, they are certainly to be preferred to blood-letting, since they do not involve an expenditure of the organized constituents of the blood, and are therefore not spoliative. Except for this purpose, it may fairly be doubted whether they are called for in pneumonia. They conflict with supporting measures when these are indicated. That they are not important with reference to the absorption of the exudation, is sufficiently illustrated by the cases reported in this paper. In one of the cases (No. 15), considerable liquid effusion, together with the solidifying deposit, disappeared in a few days, although inadvertently, the bowels had been permitted to remain constipated for a week.

Blisters and other modes of active counter irritation, when employed in pneumonia, are, of course, considered as acting usefully by way of revulsion. I suppose that no judicious physician attributes to them this action during the first stage of the disease. To employ them in this stage is to add a certain amount of cutaneous inflammation to the existing pulmonary inflammation. After solidification has taken place, all the results to which the inflammation may be expected to give rise, have already occurred. Revulsion, then, where it is attainable, ceases to be an indication. Is it imagined that a traumatic inflammation of the skin diminishes the afflux of blood to the affected lung? But the affected lung in the second stage of pneumonia is already anæmic! The inconvenience occasioned by blisters to the patient, is considerable; they are also a source of inconvenience to the practitioner, by interfering with the daily examinations of the chest in order to determine the physical condition of the affected lung. These remarks, of course, do not apply to mild revulsive applications, such as sinapisms, and to fomentations which doubtless possess a certain value in the treatment of pneumonia.

The several therapeutical measures, thus, which have been enumerated, as not entering into the treatment of the cases of pneumonia now reported, were not employed, because, with reference to some of them, the disease did not come under observation sufficiently early to find the indications for their use, or, the indications existing in a certain proportion of cases only, they did not happen to be present in these cases; and with reference to other of the measures mentioned, their value and propriety in the disease under consideration are, to say the least, doubtful. As the modern conservative surgeon rejects the doctrine contained in the old aphorism, *melius anceps remedium quam nullum;* so the conservative physician should refuse to resort to remedies which are either unnecessary or of questionable utility, except in the cases in which a deviation from this rule is warranted for experimental observation. I cannot but think that the practice of medicine would gain much if practitioners, instead of deliberating at the bedside as to whether this or that potent remedy is called for, were oftener in the habit of propounding to themselves this inquiry: Are there present any clear indications for active interference?

The last remark suggests a point of fundamental importance in the treatment of this, as well as other acute diseases, viz: its intrinsic tendency as regards termination. Does pneumonia, in itself, tend to destroy life? We might answer this question by citing the results as reported by different practitioners, the disease being treated by different and sometimes quite opposite measures. But the clinical study of the disease uninfluenced by medication, pursued of late years on an extended scale, enables us to answer the question more directly. The results reported by Dr. Dietl, and others, in which, in a large number of cases no active remedies were employed, show that pneumonia, limited to a single lobe, and uncomplicated, ends in recovery in the vast majority of instances. This statement is, of course, exclusive of the epidemic forms of the disease; but it is probable that the fatality of epidemic pneumonia depends generally on some important complication, or associated affection. A series of cases of sporadic, uncomplicated pneumonia, therefore, ending favorably, under a certain plan of treatment, does not afford adequate evidence that the success was due to the treatment. It would be a fairer conclusion to impute the success to the intrinsic tendency of the disease to recovery. On the other hand, a series of cases in which the fatal cases were not few, would justify, at least, a suspicion that the want of success might be due to the treatment. It would, however, be an error to suppose that because pneumonia, under favorable hygienic circumstances, generally ends in recovery without medicinal treatment, that medication is consequently never called for. Better far, indeed, no treatment than injudicious interference; but judicious treatment may nevertheless save some lives which would be lost under the expectant plan. Moreover, there are objects of treatment in disease, in addition to recovery. Relief of distressing symptoms during the progress of disease; a cure *cito et jucunde*, as well as sure; a convalescence rapid, and a recovery complete, leaving the powers of the body not permanently impaired—these are important ends to be kept in view in medical practice. The natural history of a disease and its intrinsic tendency to life or death, constitute the true point of departure for the study of therapeutics in relation to that disease; but medical art should not be content with being able to state the chances of recovery, even when the chances are vastly in favor of this termination.

VESICO-VAGINAL FISTULA.

CASE NO. 4, CURED. CASE NO. 5, FISTULA CURED, BUT PATIENT NOT ENTIRELY RELIEVED.

By D. Warren Brickell, Prof. of Obstetrics, New Orleans School of Medicine.

The following case of Vesico-Vaginal Fistula (No. 4), is peculiarly interesting, and I give it in all the details I have been able to collect from the patient herself.

Mary, black, aged about 30 years, born in Louisa Co., Virginia, was purchased by a negro trader for the Mississippi market. Six years ago last fall, she started for Mississippi; about a week after starting, and while awaiting the collection of other negroes for the same market, at a little town called Northampton, in Virginia, she was seized with uterine hemorrhage; the bleeding was very profuse, and within twelve hours an old physician of the place, Dr. P., was called in. He said the bleeding was dangerous, and that he would give her something to render her insensible, while he made local application to check it. She was rendered insensible by a draught, and when she was again aroused, she found hanging from her vagina a string which she was directed by Dr. P. not to touch, as her life depended on it. The bleeding stopped, and two or three days afterwards Dr. P. repeated the intoxicating draught for the purpose of removing the string and its appendages without giving her pain. When she awoke the string was gone, and she was told that all was right. In due time she was on her way to Mississippi, again feeling pretty well, and in the latter part of November she reached the town of Woodville, in Wilkinson county, Miss. Here, she was soon purchased by Mr. M. Jackson, a planter, who put her to the cultivation of cotton. She was now well, and remained so, with the exception of occasional slight irritation of the bladder, for more than two years, when she began to suffer from "gravel," that is, she had great irritation of the bladder, frequent desire to urinate, with difficulty attending the passage of water, and frequent passage of pieces of "white gravel." For this condition of things no physical examination was made, but she took medicine. Ultimately, the particles of gravel continuing to appear, the cystic difficulties increased, and at last, in October, a dribbling of urine from the vagina began. This, with the irritation, continued until the following February, when, in stooping down and making great efforts, she expelled through the vagina, a stone about the size of the thumb. This was followed by continued leakage of urine (none now passing by the urethra), but by some relief from suffering. Physicians were now called to examine her; they found something obstructing the vagina, which they determined to extract; it had to be crushed, and then proved to be a small gourd! Leakage continued, as there was a large opening into the bladder, and about a year afterwards she felt something irritating the parts again, and on passing the fingers in, she succeeded in pulling through the vulva, and from the bladder, another stone about the size of the thumb! From this time to the date of her appearance before me, she has been the subject of vesico-vaginal fistula, without any more trouble from calculi, though, of course, more or less annoyed by phosphatic deposits in the region of the vulva. About a year ago she was placed by her master under the care of a physician in Mississippi, who operated five times for the cure of the fistula, but without success.

I saw her first at the Infirmary of Dr. Beard, on the 4th of March. The object of the master on that day was to know whether she was curable. I examined her, though not very minutely, and finding the patient in good health, and with a fistula just one inch from the meatus urinarius and about the size of the end of the thumb, I gave a favorable prognosis.

On the 5th of March, she was menstruating. On the evening of the 7th, she was well again, and on the 8th, without any further preparation than the evacuation of the bowels, I operated with the silver wire and shot of Sims, and button of Bozeman. The operation was complete in three quarters of an hour, but just as it was finished, urine was observed to be flowing down the vagina from above, and now closer examination revealed another fistula, about the size of a three cent piece, above the anterior lip of the uterus. I immediately determined to operate on it forthwith, and at the end of two hours from the beginning of my work, both fistulæ were securely closed, and the urine passing by a catheter. In order to close the second fistula, the anterior lip of the uterus had to be freely denuded, and the needle and sutures were passed entirely through it. I remained with the patient half an hour, and all bleeding from the vagina ceased, and clear urine was flowing by the catheter. From this time the patient did well; all urine flowing by the catheter, and no reactive fever occurring. Every six hours she was changed from side to side, in order to relieve the hips from the effect of pressure. On the fifth day (13th March), the catheter was removed for one hour, when she readily retained her urine. In the afternoon of the same day it was removed for two hours, with like happy result. She having, of course, the desire to pass the urine, but no leakage occurring. On the sixth day (March 14), the catheter was removed permanently during daylight, and she passed her urine at intervals of two or three hours. At night the catheter was replaced, to guard any accumulation taking place during sleep. On the 9th day, the catheter was dispensed with entirely, and the patient who had been walking about her room for two days, was allowed to walk into the yard. On the 12th day I sent her back to her master entirely cured of the fistula, and passing urine every three or four hours. I have a letter from her master, dated April 13th, and he says that Mary is doing very well, except that her bladder is small and requires emptying quite frequently. It is by no means difficult to understand that this must be the case, as she had not only been long the subject of fistula, but must have labored under chronic inflammation of the bladder, which would tend to thicken its coats and produce permanent reduction of its capacity.

Remarks.—So far as I am aware, this case is unique in one respect, viz: the cause of the fistula. I do not recollect of having read of the establishment of vesico-vaginal fistula from a similar cause; and if any reader of this report can point me to an analogous case, I shall feel myself obliged to him.

I have taken the trouble to request of those physicians who first saw her, and of the gentleman who operated on her, data in relation to her condition and history previous to my seeing her; but, having failed thus far, I give the history as furnished by the woman herself, who seems to be remarkably intelligent.

I am obliged to believe that the tampon (the gourd!) used to stop the hœmorrhage, in Virginia, was the cause of all this trouble to the poor woman. She says that the physicians in Mississippi, who ultimately crushed and extracted the gourd, told her that a portion of the neck of the gourd was plainly visible, and that there was the half of a hole which had been drilled through it, no doubt to allow the passage of the string which she found hanging from her vulva when sick in Virginia; and it would seem that this string had been passed through the neck for the purpose of withdrawing the gourd by traction. This traction was made, and the gourd being somewhat saturated by the fluids of the vagina, the neck broke off just where the hole penetrated it. There is no other rational explanation that I can imagine.

The body of the gourd being left in the vagina, no doubt irritation of the bladder was gradually set up, phosphatic deposition from the mucous membrane occurred, and ultimately stone was formed. This stone then gravitated to the neck of the bladder, and as it increased in size the irritation consequent on the attrition between it and the gourd increased, until ulceration resulted and fistula was established. From the description of the opening given by the woman, and from the size of the stones which came from the bladder, I am inclined to think there must have been one large fistula before any operation was performed, and the result of the five operations was a partial healing, thus leaving two fistulæ instead of one. Another very interesting feature in the case is that the woman could have so long worn the gourd in the vagina with so little suffering. Evidently the irritation of the bladder came on very gradually, and that the vaginal suffering, in a woman who had never borne a child, and in whom the capacity of this organ was therefore comparatively limited, was not greater and more immediate, is remarkable. It all proves, however, the wonderful powers of resistance on the part of Nature, and I trust I may never again have to record such flagrant abuse of her by one who claims to be a medical man.

Case 5.—In December last I operated for the first time on a very respectable white woman of this city, who had an enormous fistula—so large that the inverted bladder was always at the vulva, and a hen's egg might easily have been passed through the opening. The first operation healed the fistula almost entirely, there being left only an opening about the size of a goose quill. The reason of this was, that the ureter opened directly on the edge of the fistula, and, notwithstanding I took the precaution to split it up about half an inch, the urine still found its way down to the denuded surface. In February last I operated again, this time taking the precaution to split the ureter up freely, and thus turn the current into the bladder. The result has been the entire closure of the original fistula; but this same ureter opens into the vagina, instead of the bladder, and there is, of course, leakage. On looking into the vagina one would never imagine that so large a fistula could have existed, and nothing abnormal is to be seen except the minute opening of the ureter. As soon as the patient is ready, I propose to operate for the relief of this condition, and I believe I shall succeed. If, however, I fail, I have cause to be satisfied with even a partially good result. Before I operated on the woman at all, she was a miserable creature, shut out from the society of her family and friends, unable to do anything for herself, save attending to her own person, and a great sufferer. Now the leakage is easily managed with napkins, there is no longer inversion of the bladder and consequent distress, the patient goes to church, visits and receives her friends, and is not only cheerful and happy under the improvement, but in the anticipation of entire relief.

VALEDICTORY ADDRESS

TO THE GRADUATING CLASS OF THE N. O. SCHOOL OF MEDICINE, DELIVERED AT LYCEUM HALL, APRIL 1, 1859.

By J. DORMAN EVANS, M. D. (*Published by request of the Class.*)

Ladies and Gentlemen—I have the honor of appearing before you as the representative of the Graduating Class of the "New Orleans School of Medicine," and deeply do I feel my inability to do justice to the task assigned me. Yet, I shall offer but few apologies for the imperfections of this my first attempt on such an occasion, trusting that inexperience will be a sufficient plea.

Classmates—The occasion upon which we have assembled to-day, is one of melancholy importance. We have met to bid adieu to each other—to go home to our stations "in the world's broad field of battle," perhaps never to return. The scenes that are now so familiar to our eyes, and endeared by association to our hearts, will soon be quitted, perchance forever. In view of these facts, it were meet that some abler voice than mine was raised to commemorate an event so fraught with interest, and so painful to the feelings of the soul. To-day we take hold of our new birthright; to-day we launch our frail, untried barks out into the general sea of active life, and give us, each and every one, to the mercy of the waves.

Emerging from the quiet seclusion of student life, all without seems bright and cheerful. The broad ocean of the future lies invitingly before us, and ambition hoists her glistening beacon above its treacherous waves. "Hopes that are angels in their birth," gild each wavelet that rolls its tiny bulk between us and that island of promise that seems to be almost within our grasp. As this morning's sun rose, did not the murmur of your own hearts improvise such music, telling of fame and fortune, love and pride? Were there not in your dreams last night joyous visions portrayed in the scroll of the mystic future—and how, then, can be we but hopeful and joyous to-day?

Yet, notwithstanding these hallucinations (for they are nothing more), let us remember that there is no excellence without labor. Let us learn a lesson from the busy world without, that he who would win must work. The potential curse on Adam, to him who accepts it in its true prefiguration, is a blessed boon. It subordinates his vague desires to his master—Necessity, and out of their chaos brings a beautiful harmony of purposes which, well directed, is fraught with beneficial results.

As students, we have really but commenced our career, and there is no leisure hour to him who would succeed; and as we have laid the foundation, so the hereafter is to determine whether the superstructure is to have beauty within its columns, strength within its walls, and shining gold within its inner crusts, or whether it is to be a mass of shapeless rubbish. For us there is emphatically no rest; our vocation is to be one of toil and self-denial—duty before everything. Our first years of comparative leisure should be devoted to practical study, systematic in an endeavor to accumulate what will be of use in after years. As in the well-tilled soil flowers of the rarest beauty and sweetest fragrance grow most luxuriantly, so in the well-worked brain springs up many a germ of useful thought, and it possesses this advantage—that all its energies can be concentrated and directed to the accomplishment of some given end, and its resources are ever ready, and upon these we will at some time have to draw daily with "thought quicker than wind." 'Tis of no use to mourn over the past, or cry "*peccavi;*" let us make friends of that which, with proper wooing, will be our best friend—the future.

Fair fortune may not at once throw her kindly smile upon us, and the world may give us the cold shoulder for many long and weary months, 'til we almost despair; but let us learn to labor and to wait; let us delve patiently and industriously, and heap up rich treasures that shall at some time dazzle the eye of day. One who now stands in the foremost ranks of the profession, remained for six long years in his office, uncheered by any call, save an occasional visit to the home of the poverty-stricken; yet firm in his resolve to conquer an adverse fortune, he flinched not, and gradually there came a change. Men marked his studious habits and gave him their confidence. From the lowest round of the ladder, he rapidly ascended to the highest—a place which he still proudly holds—while Fame and Fortune are his servants, instead of his masters.

Let it then be our endeavor, gleaning from the records of our predecessors, to shun the rocks upon which they have stranded, and profit by their noble examples. Let us be useful to society, and though from the more general diffusion of knowledge at the present day we cannot occupy the worshipful and isolated position of the profession a century gone by, yet from this very fact we can be more intelligently appreciated. Let us do our duty faithfully and conscientiously, by poor as well as by rich. Then it will be—in time we will reap blessings, and in eternity another and a more abundant reward.

Toward our brethren of the profession, let the elements of charity, good faith and a liberal construction of their motives predominate. Competition should provoke emula tion—mental attrition polishes, and the best metal rings out the clearest.

Our practice is to be psychological as well as physical, and it may require at some time a nice discrimination, whether to administer "the white draught of hope," or the "black draught of despair." It has been taught, yet still to us a mystery, that the wandering in the darkness of the insane, has been suddenly brought into the vale of light through the portal of tears or the broad gate of laughter. Where shall our subtle discrimination be, if ever brought to such a trial.

'Tis a glorious study, this complex analysis of our mental and corporeal systems—to search out the hidden, and to know upon what strings the hand of Divinity plays. We can be masters of ourselves. "The will is thought dynamized, or the physical essence and expression of the mental," and as such can be controlled to those uses which come within our proper range. If we stand beside the bedside of the dying, let it not be with the thought intruding upon our mind that through ignorance we have fallen short of our duty—for the pangs of remorse are keen, and its venom once infused into the soul, saps mental and bodily energy.

It has been frequently remarked that medicine is a composite science, that its range is widely diversified, that like the deceiving fire it lures on never to be grappled with. Yet to us just groping in the first dawnings of its light, its precepts seem harmonious and inseparably blended. Its principles are fundamental and immutable, and have ever been the same from the dim ages of the past. What though one column of the temple be Doric, another Ionic and another Corinthian, when the veil is thrown back and we pierce to the inner shrine, is not the same pure flame burning there as did in centuries gone by? And what if now and then the inodorous breath of some arch-heresy causes its forked tongue to leap angrily for a time from its home, do not its chosen priests return it still brighter for the struggle? We too are now to be sharers in the guardianship of that vestal fire. Then let us from the commencement of our professional career wage unceasing warfare upon quackery in every guise. Exterminating warfare upon all delusions in medicine, whether it be in the ranks of the regulars or in those of the volunteers. Let us be uncompromising with error wherever found—nor let our eyes be closed in blind obedience, if perchance it emanate by the fiat of the hierarchy; independent always in honesty of purpose and consciousness of right. Let us not be tempted by any dazzling allurement to wander from the paths of truth.

We are sanguine now and perhaps ever hopeful of success in our combats with disease; but as in all other occupations in life sad disappointment must too surely come upon us Said a physician of great skill and experience, "when young I had a hundred remedies for every disease, now I have a hundred diseases for every remedy." The yawning grave yard and the charnel house tell us in language silent, but dread, that no potent elixir of life has yet been found to save this frail casket from dust and the worm. It shall not be ours to call down the Promethean fire, and for all our best efforts there will yet be tears and sorrowings and lamentations.

Had not the dart of the unerring archer been thus fatal, to-day we would all have rejoiced in the presence of one, whom to know was to love, beloved and beloving. Yet, for some inscrutable Providence he was taken, while we are left, but with his memory fresh in our hearts. A kind and patient instructor, adapting that instruction intuitively to our mental needs, clear in his convictions and equally clear in imparting them, close and severe in his logic, pointed in his illustrations, comprehensive on every subject he grappled with, keenly analytic and scholarly, he combined alike facility and fascination in his teachings. A noble-hearted gentleman in spirit and in truth, frank in the revelations of an inner nature, at once genial and profound, and a Christian. But to him the past has no memories—the present no action, and the future no hopes. Cut down in busy, active life, from a sphere where his absence will always be tangible, it is for us a moment to pause and ponder, and be timely wise, "for the night cometh in which no man can work, and in the grave there is no knowledge nor device, nor wisdom."

Another has, by the hand of death, been removed from us. Light and buoyant with all the hopes of youth, he came among us; his stay was brief; the "grim monster" death, claimed him as his own, and, far away from home and kindred, he was taken away—let us trust to a better and a happier world.

Proud should we be to-day of our roof-tree, strong and vigorous in her youth, drawing nutrition from the richest of soils. Her's, thus far, has been a career of almost unexampled prosperity, and soon will her branches spread over the length and breadth of the land. Let our alma mater's name be our care, and let it be our constant endeavor to strengthen her bands.

And now, to you, gentlemen of the Faculty, our obligations are lasting. With care, zeal and energy, you have interpreted our wants, and have led us through what now seem pleasant paths. Your efforts have been untiring to lead us into the ways of knowledge; the crooked has been made straight, and the rough smooth; and though ours have been no "flowery beds of ease," yet duty combined with your kindly interest and solicitude has made the journey pleasant. Our relations have been of the most friendly nature. •With our crudities and imperfections you have borne kindly. Of all our errors of omission and commission be forgetful, and over any unpleasant memory draw the curtain of oblivion. To-day, for you we have none but the kindest of feelings, earnest desires for your future welfare. In the name and behalf of my fellow-graduates, I tender you our heartfelt thanks, our sincere gratitude, and our lasting remembrance. We have met for the last time as teachers and pupils, on earth, but may we all, none missing, some day be re-united in the "isles of the blest."

Fellow-graduates, one step from the threshold, and we are men to think and act; the wide world our cloister—its denizens our study. The age is eminently utilitarian and progressive, and if we stand still we are lost. Let our efforts be practical, let not our time be beguiled away from us by visionary ideals, but let us search to the core for the sweet morsel in the "apple of truth," ever bearing in mind that "Time overthrows the speculations of men, and confirms the judgments of truth."

We are to identify ourselves as workers in the community we shall choose for our homes. Let us then toil on unwearingly, for in this we more closely approximate our perfect time. Said an author of celebrity, "there is no salvation for man, until his natural sluggishness is successfully combatted, and until he finds all his pleasures and enjoyments in activity, and in activity alone." Bulwer has said that "the key to all knowledge is the desire to know." May we have this key always in our possession, and may it be brightened by continual use.

Life is brief and fleeting and gives but a short time to work in; change is ever rife—flood-tide to-day, ebb-tide to-morrow, shadows pursuing shadows. While the inanimate simply exists unchanged through cycles of ages, we live to breathe and learn, flicker and die, yet unlike the former we are but the begining of ourselves, for in the somatic death, we but enter another life, ever approachable in this, yet unattainable.

How solemn the thought that we have met to-day to part, and for most of us that parting gives no signal of reunion in time. Widely diverging from this, our portal, into many different paths, the goal is inevitably the same. Come sooner or come later—whether in the zenith or in the occident, 'tis but a short journey, if in the eventide our shadows are longer and point hopefully toward the morning. The varied shades of the painter's pencil comport but too truly with the checkered scenes through which we must pass.

A host of kindly feelings wells forth from the soul, to which, in this hour of parting, neither pen nor tongue can give utterance. Grateful pride that you have deemed *me* worthy to stand as your representative, will make this hour a glowing picture in memory's domain. And when in after years memory's plaintive harp shall quiver to the touch of the past, its sweetest notes will tell of those, whose earliest dreams of ambition were kindled with mine, beneath the consecrated roof of the "New Orleans School of Medicine." Warm and heartfelt thanks are yours—

> "And may we so live that sinking on our last long sleep,
> We there may smile, while all around us weep."

May the same Deity who watches over all alike guide and guard you well through life. And now for home and those we love.

Farewell, and may God speed you.

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SPECIAL SELECTIONS.

MEMOIR ON VASCULAR CONTRACTILITY.

By J. Marey, D. M. P., Interne à l'Hopital Cochin, from the Annales des Sciences Naturelles, vol. IX; 4th series, translated by F. J. B. Romer, M. D.

We have shown in a former article, the effects due to the elasticity of arteries, and we have demonstrated that, in the circulation, the part it acts, *is to facilitate the afflux of blood into the arterial system, and to regulate its flow therein.* We shall now investigate the object of another function of the vessels; namely, contractility.

Important distinctions subsist between these two properties of the vascular tree, and they are recognized by their effects on the flow of the blood.

Elasticity is a physical property, exhibiting nothing peculiar in the vascular system; it exists in the vessels of the corpse, as well as in those of the living animal; the investigation of its effects must consist in hydraulic experiments, which can be performed with any tube possessing elasticity.

Contractility is a vital property of blood-vessels, and must necessarily be studied on the living being, by means of really physiological experiments.

PROOFS OF THE EXISTENCE OF CONTRACTILITY IN BLOOD-VESSELS.

The existence of contractility in vessels is now an acquired fact to science, and whatever may heretofore have been the discussions to which it gave rise, we shall limit ourselves to cite a few experiments which will remove all doubt. Many agents have been employed in order to produce contractions; we give here the results obtained:

1st. Electricity, which was employed by Wedemeyer, (1), failed to produce contractions of the Aorta, but it induced them in the mesenteric arteries.

2d. Irritating injections, tried by Zimmermann, Lorry and Versehuir, contracted the vessels.

3rd. Traumatic irritations, in the hands of Versehuir, produced the same result. The scraping, with a scalpel, of the femoral artery, induced contraction in the arteries given off below the irritated point, (2).

4th. Simple contact on the interior of these vessels produced contraction. Solid cylinders easily introduced into the vessels, have been pressed by them, so as to prevent their withdrawal, (3).

5th. Hemorrhage produces evidently a variation in the calibre of vessels; J. Hunter, Parry, Spallanzani, Lacamhie, have seen an abundant loss of blood to produce a contraction of all the arteries. This constriction is not an effect due to elasticity solely, which would cease to be counterpoised by the tension of the blood; for in carrying the hemorrhage a degree further, the arteries redilate, (4).

6th. At the moment of death there occurs, finally, a vascular contraction, ceasing only with cadaveric rigidity—after it, dilatation takes place, (5).

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(1) Bérard, Traité de Physiologie, t. iii, p. 736.

(2) Burdach, t. vi.

(3) Burdach, t. vi.

(4) Bérard, Traité de Physiologie, t, iii, p. 738.

PROOFS DERIVED FROM MODERN EXPERIMENTS.

Modern investigations have further enriched physiology by new proofs of vascular contractility; they have even taught us something beyond, namely: that this contractility, like that of the muscles in animal life, is under the control of nervous influences, and that the section or irritation of the nerves which govern it, give rise to effects analogous to those which have been for a long time observed in the muscular system.

We mention first, the beautiful discovery of M. Bernard, who, repeating, towards 1851, the experiments of Pourfour-du-Petit, found, that the section at the neck of the great sympathetic, caused conjestion and a rise of temperature in the injured side, while the galvanization of this nerve produced palor and a cooling in the corresponding portion. M. M. Budge, Waller and Brown-Séquard, have given to this fact an explanation, which from its very simplicity, stamps it as the truth. According to them, the section or galvanization of the great sympathetic, produces an action on the contractile vascular coat in every way comparable to that following the section or galvanization of the nerves of animal life on the muscles which correspond to them. The section of the *vaso motor* nerves paralyzes the vessels and allows their dilatation, while the galvanization of the same nerves induces contraction in freeing them of the blood which they contain.

Facts of another order, relative to a *rhythmic contraction* of the vessels, have been published by M. M. Schiff and

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(5) Burdach, t. vi,

Wharton Jones; they have been observed in France by M. Velpeau, (1), who has given a new explanation of them. These rhythmic contractions, observed in the wings of bats and the ears of rabbits, appear to us of a special nature, and hence will not occupy us here; we shall confine ourselves to the investigation of the mere regular action of contractility, which seems to belong to all the small vessels of the system.

The foregoing are sufficient proofs of vascular contractility, it is useless to demonstrate further the existence of a function which has now ceased to be contested; but in order to complete the demonstration, we add, that anatomy itself has furnished a proof, by showing a layer of circular fibres in the middle coat of vessels, a structure which gives a satisfactory reason for the changes of calibre in them, and whose abundance is the greater for a vessel as this is the more endowed with contractility.

SEAT OF VASCULAR CONTRACTILITY.

Valentin (2) has proven by experimental researches that contractility is not limited to the arterial system; he discovered it in veins and even in the larger lymphatic trunks. The contractility of veins has been made quite evident by M. Gubler, (3) by means of ingenious experiments, easily repeated. But as arterial and capillary circulation occupies us especially now, we shall examine, if in these primary blood-channels there be not some portions better provided with contractility than others.

At the epoch when Bichât and his school denied contractility to arteries, (1) J. Hunter had gone beyond the demonstration of it in these vessels; he had measured it for each of them. The following are his well known experiments on this subject.

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(1) Archives Générales de Médicine, 1857, p. 222.

(2) Valentin, De Functionibus Nervorum, 1839.

(3) Gubler, Arch. Gén. de Medicine.

J. Hunter begins by remarking, (2) that if we examine the artery of an animal which has been killed by a sudden hemorrhage, this artery is found to be very contracted. If we cut it in pieces, each of these if stretched, by whatsoever cause, instead of resuming its original calibre, returns to one larger, but always the same for the pieces of the same artery. He draws the conclusion, that in dilating the vessel, he has destroyed the effects of contractility, and that the vessel, by the inherent property of its tissue, namely, elasticity, returned to what he names a *medium state,* in which elasticity is in repose. Having from that time a means at command wherewith to measure the effects of contractility, Hunter instituted comparative experiments which showed to him that *contractility was very weak in the large arterial trunks, and that it increased in proportion as we recede from the heart.*

Having now observed the contractility of arteries to begin, as it were, at a certain point and to grow, in proportion as we pass to smaller vessels, let us inquire whether a terminal limit can be assigned it, or if we find it diminished or destroyed in very fine capillaries.

Nothing as yet proves that contractility does not exist in the ultimate ramifications of capillaries, and that it is not continued with the one demonstrated by M. Gubler in the venous system. Indeed, besides that variations of calibre have been observed in very small vessels, direct microscopical observations have proven to Thomson, Wilson, Hastings, Kaltenbrümer, Wedemeyer, and, that capillaries of the smallest calibre contract in some circumstances. However, Henle (1) has with reason remarked, that elasticity is equal to the purpose, and that by it we can explain changes of diameter in these vessels. In fact, admitting the fine arterioles which precede them to be dilated, the capillaries will receive the blood with greater tension, by reason of the diminished friction above them, and will allow themselves to be distended by this blood. Reciprocally, if the contracted arterioles allow but a small quantity of blood to gain access to the capillaries, these require elasticity alone in order to return to their normal state. But if the hyaline structure of the smallest capillaries is incompatible with contractility, and compels us almost to admit Henle's opinion, we have no right in fairness to refuse this property to capillaries having a diameter from 0^{mm} 0 30 to 0^{mm} 0 60, for in them are already found the elements of the layer of circular fibres. On this point MM. Henle, Robin, and Segond, are perfectly agreed.

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(1) When Bichât speaks of the contractility of arteries, it is elasticity which is meant.

(2) Traité du Saug et de l'Inflam., chap. iii.

NATURE OF VASCULAR CONTRACTILITY.

We shall now attempt to investigate more minutely the manner in which arterial contraction is produced; one of the most instructive experiments is observed daily in our operating amphitheatres, and it is astonishing this property should have been so long undervalued and even opposed by physiologists, when every surgeon had an occular demonstration of it. The fact consists in this :

When, in an operation, we sever an artery of small calibre, a gush of blood is immediately projected from it, then after a while it stops of its own accord, and from this time there remains no further evidence of a severed arteriole. The operation completed, the dressings are applied; but after a lapse of time, variable in length, a hemorrhage supervenes; and on removing the dressings, an artery is seen to bleed freely. The interpretation of this fact is plain; it can only be explained by the contraction and subsequent redilatation of the artery. One circumstance must impress us in the contractility of vessels; it is the slowness with which they contract, this only taking place after a certain interval, and the considerable length of time during which this state of occlusion continues. A marked difference does here exist when compared with what takes place in voluntary muscular actions, but an entire analogy subsists between vascular contractility and that of the muscles of organic life, these last being also subject to the great sympathetic. This similitude has already been noticed by physiologists. (1)

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(1) Encycl. Anat., tome vii.

Finally, on the cause of vascular contractility, curious passages, written some time back, may be found in Henle (2); the author drew the conclusion that there is:

1st. A normal contraction.

2d. An induced (proroquée) contraction.

3d. A paralysis of the vessels, when under the influence of an excessive excitation.

4th. All these contractions are reflex and cease on the section of the sensitive nerves, etc., etc., etc.

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(1) Béclard, Traité de Physiologie, p. 200.

(2) Loc. Cil.

CONCLUSIONS DRAWN FROM EXPERIMENTS MADE UP TO THIS DAY.

If we bring together all the past and recent experiments to which we have adverted, the following conclusions may be legitimately drawn thence:

1st. That vessels are in a permanent state of normal contraction. (1)

2d. That they may still farther contract under certain influences, (such, for instance, as a moderate excitation), and more or less thoroughly free themselves of the blood which they contain, producing palor and cooling of the tissues. We shall give elsewhere, if necessary, the experiments which go to prove that the temperature of a part, *exposed to cold*, is in the ratio of the quantity of blood circulating within it.

3d. Under other circumstances, they may contract less energetically than habitually (for instance, under the influence of a too powerful excitation), and allowing themselves to be distended by the blood, produce redness, heat, and swelling of the parts which contains them.

4th. The great sympathetic is the nervous system presiding over the contraction of vessels. This conclusion is based upon the following reasons: *a*, Because the great sympathetic forms rich plexuses on arterial vessels, which have been traced very far (2); *b*, Because the irritation of an artery produces contractions in the branches it gives off (3), (a fact which can only be explained by the irritation of filaments from the great sympathetic meandering over the artery for the purpose of being distributed on the contracted branch); *c*, Because vascular contractions resemble in a striking manner those induced elsewhere by the great sympathetic (in the intestines for example), as regards the slowness with which an effect is produced by an excitation, and the duration of the effect after the cessation of the cause; *d,* Because the section and galvanization of this nerve produces dilatation and contraction of the vessels. Let us add, that the galvanization of the great sympathetic causes the disappearance not alone of the congestion which its section had produced, but that likewise resulting from other causes, such as that caused from the application of ammonia to the conjunctiva. (1)

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(1) Hunter, Heule.

(2) Heule, Encycl. anat., tome vii.

(3) Veschiur, cited by Burdach, t. vi.

ON THE PART WHICH VASCULAR CONTRACTILITY SUBSERVES.

To understand the effects of this vital property which induces changes in the diameter of vessels, it is necessary that we be well agreed on the following point:

What is the effect of dilatation or constriction of vessels on the quantity of blood flowing through them?

Physical laws applied to the solution of this hydraulic problem, inform us, that the contractions of vessels, by increasing friction, cause an obstacle to the flow of the blood, which slackens its speed.

Applied to capillary tubes, the law is thus stated by M. Poiseuille. *The flowing is proportional to the fourth power of the diameter of vessels, through which the flowing takes place,* (2). We can understand now, that the dilatation of capillaries will allow the passage of the blood more readily into the veins, thus causing a reduction of arterial tension; reciprocally, that contraction of the capillaries, forming an obstacle to this passage, will increase arterial tension.

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(1) Cl. Bernard, Mémoires sur les effets de la section et de la galvanisation du grand sympathique aucan, 1853.

(2) Voir la thèse de Segond, Syst: capillaire, 1853.

Physiologists admit, on the contrary, that dilatation of the capillaries retards the flow of the blood, and that their contraction accelerates it. Strange inconsistency, that while advancing such an opinion, they should still pretend to rely on physical laws. Thomson (1) is the first who sustained this error; and most of the physiologists who succeeded him have repeated it, by invoking the physical laws; scarcely have the most recent experimentators finally recognized an error for so long a time in repute.

We aim, above all, to establish well the fact that *the contraction of vessels slackens the circulation and that their dilatation accelerates it.*

Without a perfect knowledge of this hydraulic principle we should find it impossible to pursue further the physiological study of vascular contractility.

The reason which led to the belief that vascular contractility accelerates the circulation is the following: When a given tube offers bulgings and (resserrements) constrictions, it is at the constricted parts that the liquid runs swiftest. The fact is perfectly true, but let us inquire what it signifies. When the flowing is established, each segment of the tube must allow an equal amount of liquid to pass, whatsoever its diameter; it follows, that the liquid molecules must travel faster in a place where they can pass only successively, owing to the narrowness of the tube; while at places of larger diameter, where several can pass abreast, they will possess less velocity. But on the whole, the quantity of liquid which flows through the tube, is diminished by the constriction. Hence let us not confound the acceleration in the motion of each individual molecule at a given point with the acceleration of the flowing itself.

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(1) Traité de l'inflammation 1827.

Undoubtedly, many physiologists have made this distinction; but the greater number have, with Thomson, considered the constriction of vessels, as the cause of a more active circulation.

Hastings considered dilated vessels as forming an obstacle to the flow of the blood, and in such a case, admitted a greater force in the arteries, so as to overcome this obstacle. The error soon crept into pathology, and some clinical teachers went so far as to admit that the dilatation of the aorta was an obstacle to the flow of the blood. Let us close this discussion by concluding, that contractility is a force by virtue of which, vessels can regulate the quantity of blood circulating in their interior. We shall see the advantages derived from this property.

If vessels were only elastic, all the physical influences, gravity, exterior pressures, etc., would act in every part of the body, and without hindrance, in modifying the current of the blood, and, considering the thousand circumstances in which we are subjected to them, might bring about dangerous perturbations. Thanks to the contractility of vessels, each portion of the body contains within itself the agent able to regulate its tension, and which, according to circumstances, can aid in opposite directions. Thus we may suppose a priori:

1st. That if the physical agents have a pertubating influence, contractility can counterbalance them.

2d. That if contractility be directly called into action, it can by itself modify the circulation, without the aid of physical agents.

However natural these two propositions may appear, they require, nevertheless, irrefutable experimental proofs. This has been the object of researches by us, and which we now submit.

EXPERIMENTAL RESEARCHES ON VASCULAR CONTRACTILITY.

Of all experiments in physiology, those made on man, and principally on oneself, are the most instructive, the most exempt from causes of error, so common in vivisections. In the researches which occupy us, nothing is so diversified and easier to institute than this species of experiments.

The question was simply to investigate the phenomena evolved by the various influences to which we are constantly subjected. Such as elevations, compression, heat and cold, muscular action, etc., etc. The result of these influences is generally a common place fact, observed daily, but which is neglected because of its very frequency. We believe, on the contrary, that a fact of this kind, thoroughly investigated and linked to a simple but comprehensive theory, acquires a great scientific import, and that it constitutes a true, and the best of physiological experiments.

PHYSICAL AGENTS WHICH MODIFY THE TENSION OF THE BLOOD IN VARIOUS PARTS. ACTION OF VASCULAR CONTRACTILITY UNDER THESE INFLUENCES.

Like all other forces of the system, vascular contractility is destined to struggle (lutter) against a resistance; that opposed to it, is the tension of the blood. The heart propels the blood towards the capillaries, and these, by their contraction, moderate this afflux, hence the powerful tension of the arterial system, one of its principal characters. (L'état de vie). Life, as regards the circulatory hydraulics, might be defined to be *a constant struggle between the heart, supplying the arterial system, and these vessels which attempt to empty themselves by means of their elasticity and contractile* *force.* After death, from the moment the heart ceases to distend the arteries, these last return to their natural state, emptying themselves pretty thoroughly into the venous system. During life, arterial contractility struggles more or less successfully against the interior tension; if the vessels of an organ contract too powerfully, the blood cannot flow with sufficient abundance into them; if they are but feebly contracted, they are distented by the afflux of blood, and the part to which they are distributed becomes conjested. Between these two extremes, is found that middle or normal state of contraction corresponding to the normal state of the circulation.

If tension were equal in the whole arterial system, an equal contractile force would also every where suffice to maintain the circulation in a regular state; but such is not the case. Tension differs in the various parts of arterial channels; it may moreover change at any moment at any point, under the influence of gravity alone. If tension varies, the circulatory state must vary also under the same influences, unless increasing or decreasing the contractility of vessels brings them back to their normal state.

Gravity *modifies the tension of the blood and, as a consequence, contractility, this last tempering the efforts of the first.*

The action of gravity on the circulation of the blood is not controverted, but it has been considered as influencing almost exclusively the venous circulation, and has been somewhat too neglected as regards that of the arteries. Yet, physiologists who have made hemometric experiments have all pointed out the effects of gravity on arterial circulation. According to physical laws, it is evident, that in an upright position, the blood, in order to reach the most elevated portion of the head, must overcome the resistance due to the weight of a column of liquid, whereof the light is equal to the vertical distance intervening between the heart and sinciput. Again, the blood is not alone forced in the lowest part of the pelvic extremities by the power of the cardiac systole, but also by the pressure which the weight of a column of blood, having for height the vertical distance from the heart to the plantar region, exerts on it. It follows that between these two extreme points, there exists a difference equal to the pressure of a column of blood the height of the body, and this constitutes the circulatory force. Inequalities of tension, such as these, in the two opposite portions of the body, do not prevent the circulation from remaining normal in an upright position. We shall see this effect to be owing to the fact, that *in these conditions of unequal tension for different parts, there must exist a compensating inequality of contractile force.* As a proof, let us alter ever so little the relations of declivity between the head and the feet, and the circulatory state in these parts is enormously changed: if the head be lowermost, it reddens and becomes heated, if the feet be raised, they become pale and get cool.

We can now understand why the vessels of the head, possessed of an amount of contractile force sufficient only to sustain the pressure due to the action of the heart, *diminished by the weight of the upper column of blood,* cannot struggle against this same force increased by the weight of this column (making in this case of the circulation a difference of twice the weight of the upper column). Reciprocally, the vessels of the feet, having to contend in their normal contraction against the additional pressure of the inferior column of blood, are too powerful, when the interior pressure is diminished twice the weight of that column, and hence do not permit a sufficient amount of blood to pass through them.

Here then we have a first fact, demonstrating that *the normal contractility of vessels is not alike in every part of the body, owing to the influences due to gravity.* (1)

This unequal contractility is not distributed to the different portions of the body in a definite and unvariable manner. As no part is absolutely designed to a degree of declivity, which shall always remain the same, so the contractile force of its vessels varies according to necessity, and is excited into action by gravity itself, after a variable lapse of time. In proof:

A well known double phenomenon is observed in those who have been confined to their beds, by a fracture, for instance, when they attempt to rise for the first time. Their legs redden, swell and become very hot, whilst the head grows pale, and the cerebral ænemia may even go so far as syncopy. Have we not here a proof that vascular contractility had been more equally distributed between the cephalic and inferior extremities, when, owing to the prolonged horizontal position, there ceased to exist an interior inequality of tension? and if the patient rises, after having undergone this modification, the influences of gravity meet with a vascular contractility which has ceased to be appropriate, in order to oppose an obstacle to the perturbations, which are in such a case observed.

We see rope dancers keep their heads for a considerable time lower than their feet, without the circulation being in them much modified; while to a person but little accustomed to gymnastic exercises, the bending of the head, in the act of picking up something, brings on a rush of blood to the head, as it is commonly termed, and occasions redness of the face, and produces even a disturbance of the senses.

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(1) We will show in a future article that the exterior pressures which struggle (Suttent) against tension are not everywhere equal, and that for an analagous reason, the various organs of the system being not under the control of the same pressure, *vascular contractility varies in them,* in such a manner, that the less compressed points are those endowed with the most energetic vascular contractility.

This kind of *adaptation* of vascular contractility to the influence of gravity, requires but a short time for its manifestation, a few hours of a recumbent position are sufficient to render it perceptible, it is quite evident when we quit in the morning the horizontal position, and when the face grows pale, while the feet get red, hot and tumified. (1) A period of six or seven hours have hence sufficed to deprive the vessels of the increased or diminished vascular contractility which they had acquired the day previous under the influence of gravity.

CONDITIONS, IN WHICH THERE EXISTS A DISTURBANCE BETWEEN SANGUINE TENSION AND VASCULAR CONTRACTILITY, WITH CONSECUTIVE DISORDER OF THE CIRCULATION.

In interpretation of the facts we have mentioned, we are led to the admission of a constant antagonism between the tension of the blood and the contractile force of the vessels which sustain it. The excess of tension over contraction is what causes the sanguine circulation, and for this last to be of suitable force (dégré), vascular contractility must in part neutralize the effects of tension, which shall be neither too powerful nor too weak itself. It is this regular state of the two opposing forces which we call equilibrium.

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(1) This tumefaction is considerable, and those who wear tight (chaussures) shoes know very well how difficult it is to enter the foot into them in the morning, while a few hours later it becomes an easy task.

In the cases to which we have referred, the equilibrium was destroyed, bringing on a disturbance of the circulation. As regards one of these, contractility being adapted to the influences of gravity in an upright position, the head highest, on changing suddenly the direction of these influences before contractility has had time to vary, the equilibrium is destroyed. In the other case, contractility being adapted to the uniform tension of the horizontal position, in which gravity does not act, if we excite this influence suddenly into action, by assuming the upright position, the equilibrium is again destroyed.

DISTURBANCE OF EQUILIBRIUM, OWING TO A UNIFORM INCREASE OF ONE OF THE TWO ANTAGONISTICAL FORCES; THE OTHER BEING UNEQUALLY DISTRIBUTED. CONSECUTIVE CIRCULATORY DISORDERS.

1. *Disturbance of equilibrium by increased action of the heart.*—If in the case of an adaptation of contractility to an upright position, the impulsion of the heart increases, thereby raising the tension of the blood, this increase will be distributed equally throughout the system, and the result is, that the inequality which gravity induced between the tension of the head and that of the feet is relatively diminished, contractile force being unprepared to undergo an analagous change, the vessels of the head will be relatively most deprived of contractile force, and thus allow themselves more than the others to be distended by the afflux of blood. This explains to us, why, when strong palpitations suddenly supervene, it is the head which suffers most from the effects of congestion, and why these palpitations are accompanied with redness of the face, dimness, etc.

2. *Disturbance of equilibrium by a general increase of the*

contractile force of vessels.—In similar conditions of an upright position, inducing inequalities of tension in various parts of the system, of whatsoever cause, for instance hemorrhage, increases the contractile force of all the vessels of the body, by an equal quantity, then is the compensating inequality *relatively* diminished, tension still remaining unequal if gravity continues to act. In such a case the vessels of the head possess relatively most contractile force and allow less blood to pass. From thence the cerebral anemia, which may even induce syncopy. To a subject bled standing, the foregoing is the true explanation; it is a well known fact that syncopy is of frequent occurrence in such cases. (1)

(*To be continued.*)

EDITORIAL AND MISCELLANEOUS.

"DR. MOTT TO THE ACADEMY OF MEDICINE."

[Having published in this journal the proceedings of the New York Academy of Medicine, in relation to the Whitney-Horace Green affair, we deem it our duty to lay before our readers the following letter of Prof. Valentine Mott, which shows that its venerable author will not lay aside his manhood and truckle to public opinion, the Academy, or the friends of the swabbing practice, or to all of them combined, when they attempt to trample him and his honest opinion in the dust. It is gratifying to the pride of a true physician to see that there are some men in our ranks who will be independent enough to enunciate their honest opinions in the very face of persecution itself. Once let it be otherwise, and swabbing and injecting, and all other sorts of humbuggery, will soon extinguish the lights of science. Dr. Mott's opinion will be properly judged only by those who know him after he and his contemporaries are gone; and, let it be deemed right or wrong, it will never be denied that he promulgated it like a man.—D. W. B.]

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(1) The bleeding acts in such cases, mainly as an agent, inducing general contraction. See J. Hunter, Cor. Cit.

To the Academy of Medicine: Gentlemen—I have endeavored, through life, to make it my rule of action "To do unto others as I would that others should do unto me." This desire, together with my personal esteem for Dr. Green, with whom I have been on terms of most friendly intercourse and correspondence for years, will explain, and, I trust, excuse to the public, my unwillingness to give an opinion in the late Mr. Whitney's case, other than could be inferred from my post mortem statement, read at the last meeting of the Academy.

Nothing but a sense of justice to myself and others, concerned in this melancholy affair, induces me now to give to the Academy my entire and unbiased view on the subject. At the same time I avail myself of the opportunity to contradict the untruths so industriously circulated by Dr. Green's friends, with regard to Dr. Beales, myself, and my son.

Forbearance beyond a certain point ceases to be a virtue, and at this point I feel we have arrived. It therefore becomes my duty to defend my character against the unjust inferences drawn, and the false assertions made by the parties above alluded to.

In the first place then—because Dr. Green was not called in to assist in the treatment of the patient during his illness, or invited to witness the post mortem, it is inferred that Dr. Beales and Dr. Mott prevented it. And it is furthermore stated that one member of the family desired his presence—the inference and the assertions are alike untrue, as the accompanying letter from the family will prove.

The excited feelings of the family were such as to preclude the possibility of urging Dr. Green's attendance. Nor can it for a moment be imagined that such a wish could have been entertained by *one* of the immediate relatives of a man who, throughout his illness, to the day of his death, persisted that he was suffering and dying from the professional treatment of Dr. Green.

To say that a correct diagnosis was not made, is idle and ridiculous, and the assertion *that had the abscess* been opened his life might have been spared, is equally absurd.

It was evident that some lesion or injury did exist, to account for the extensive emphysema, but where that injury was, no man could tell until after death. The tumefaction from the extensive diffusion of air through the cellular tissue, rendered any satisfactory inspection of the throat within or the neck without, *impracticable.*

The abscess, or rather cavity, contained very little pus at the post mortem, enough only, had the patient's life been prolonged, to have aided in throwing off the large quantity of sloughy cellular membrane, which hung like "wetted tow" within the cavity, and with which it was mostly filled. This, with the lacerated opening into the pharynx, and the serious lesion of the left lung, would lead to the belief that some irritating substance or fluid had been introduced.

With regard to the situation of the abscess or cavity, I again assert it was such as to forbid the idea being entertained by any one acquainted with surgical anatomy that it could have been seen by any examination from within the mouth, or felt externally by the most careful manipulation upon the neck. Of these facts, surely those who were in constant attendance on the case ought to be the best judges.

I feel as if the experience derived from fifty-three years' practice, together with my duties as professor of surgery during that time, ought at least to entitle me to the confidence of a public, under whose eyes, and in whose service, my professional life has been spent; and I am willing to leave it to that public to decide, from their knowledge of me, whether I am capable of drawing up a post mortem, the principal object of which would be to heap censure upon Dr. Green or any other man. All that is required in a post mortem is a plain and full statement of the case. Such a statement I furnished to the Academy at the last meeting, and now add my solemn testimony to its truth.

I regret that more is called for, and that I am compelled to give my opinion also—which is, from the best of my belief, that Mr. S. Whitney died in consequence of the treatment to which he had been subjected previous to the attendance of Dr. Beales and myself.

MANUFACTURING PHARMACEUTISTS AND OURSELVES.—In the February, 1859, number of our journal we indulged in some strictures on apothecaries and manufacturing pharmaceutists in general, the same having been prompted by an article on the same subject by William Proctor, Jr., of Philadelphia, and which we published at the same time. Amongst other remarks the following may be found at page 840: "A house in Paris makes compound cathartic pills by the formula of the United States Pharmacœpeia (or they say they do), and coat them with sugar, and all the American druggist has to do is to count them out to his customers."

The reader will be surprised, no doubt, to learn now that we have received a letter from Mr. Frederick A. Reichard, of New York city, and said to be agent of Garnier, Lamoureux & Co., of Paris, urging that we have done these manufacturing pharmacuetists "great injustice" by making the foregoing remark, as "you (we) imply that it is possible that they do not prepare the pills according to the formula of the U. S. Pharmacœpeia, although their word is given to that effect." And then follows a long rigmarole about the respectability of the house, the purity of the pills, etc., etc., etc.

Our reply to Mr. Reichard is short. For reasons which we have before given, we believe manufacturing pharmaceutists are doing more harm than good, and we believe the province of the apothecary is to choose pure medicines, and then to compound those medicines as shall be ordered in the prescription of the physician, or according to the formula of the Pharmacopeia under which the physician prescribes. If a *physician orders the Compound Cathartic Pill of Garnier, Lamoreux & Co.*, then let the apothecary dispense it—not otherwise. We contend that the post of the apothecary, like that of the physician, is one of incalculable responsibility, and the apothecary who dispenses a medicine without knowing all that can be known about it, is trifling with human life and human happiness to an extent that should be in the highest degree punishable in every civilized community. More, we are forced to regard that man's conscience as dead to the plainest dictates of humanity, and in the youths who surround him to count out pills and drops, as the dry goods clerk measures tape by the yard, we see no well trained minds travelling the road to the highest usefulness and respectability, but rather another generation coming forward to fatten pecuniarily on the weakness and credulity of their sick fellow men. We neither know nor care whether the pills of Garnier, Lamoreux & Co. are made according to the U. S. formula. As a physician, we shall always act as if we believed them to be spurious, because we believe it to be our duty not to prescribe them; and as an editor of a medical journal, we urge our honest conviction that it is wrong for any physician to prescribe, or any apothecary to dispense them. If the expression of these opinions redound to the disadvantage of the manufacturing pharmaceutists, it is their misfortune—not our fault.

"PLANTATION MEDICINES.—While the treatment of negro diseases is principally in the hands of the unprofessional, there is no subject of plantation policy of greater importance than the provision of medicines; and probably there is none so little understood, or so badly managed. It should therefore be made known, that there are large manufactories both in France, and this country, in which many valuable remedies are made into sugar-coated pills, which may be kept for years without deterioration, or waste. The advantages to be derived from the use of remedies thus conveniently prepared, are many and various. Besides the confidence which negroes are apt to place in neatly prepared and tasteless remedies, the certainty and convenience of the dose, and the security afforded against bad qualities, together with the saving of expense by wasting and deterioration, are advantages of which planters might be glad to avail themselves. Besides, the want of properly prepared and genuine medicines, sometimes induces planters to resort to the use of secret nostrums, and thus incur great risk of injury from misapplication of remedies. Various systems of charlatanry find encouragement, also, in the mere fact, that remedies are prepared for convenient use by those who practice them.

"These sugar-coated pills are well suited, also, to the modern practice of simplifying prescriptions. Formerly it was more common than now, to administer a variety of remedies, either in combination, or by alternating one with another at short intervals, with a view to meet and overcome conflicting symptoms, and sometimes, no doubt, for the purpose of increasing the chances of relief by multiplying the uncertain means of cure. The skillful physician now expects to determine with greater certainty, the character and seat of the disease; enabling him, by the use of a simple remedy, in many cases, to strike at the root of the difficulty, and effect a cure without collateral aid.

"The sugar-coated pills made in this country are manufactured principally by *Tilden & Co.*, New York, who prepare, also, by an improved method, a great variety of vegetable extracts of uniform strength. They manufacture all their articles expressly for the medical profession, whose condemnation of any one of them would at once prevent its sale by any reputable druggist. This affords a valuable guaranty for the quality of their medicines, and by the entire publicity given to the whole subject, separates it widely from the scheme of nostrum vending, by which the country is so sorely afflicted.

A. P. MERRILL.

Elmscourt, March 28, 1859.

Did we not recognize in the above signature the name of a gentleman who has grown old in the practice of medicine, and who should therefore be the last to do or say aught which could redound to the disadvantage of our profession, we should passed the foregoing extract from a late Natchez paper by as we do the thousand and one quack advertisements which daily meet our eye. But a medical man is here doing his profession and its votaries a flagrant wrong (however good the motive), and we call attention to it.

1st. If it be true, that "the treatment of negro diseases is principally in the hands of the unprofessional," it is the duty of every honest physician to exert himself to correct this evil and throw the practice into its proper channel, rather than help to continue the evil by recommending what he may conceive to be good medicines. The "unprofessional" are as incompetent to practice with pure as with impure drugs; indeed, when the subject is carefully considered, it is very questionable whether in such hands the inert drugs are not safer. For ourself, we should much prefer Nature to an ignorant physician with the purest drugs, and if we were compelled to take an ignorant physician, we should be glad to have his drugs as nearly inert as possible.

2d. We demand the reliable proofs that these vaunted "sugar-coated pills may be kept for years without deterioration, or waste." Personally, the author of the above can have had no experience which will warrant his speaking so confidently; and theoretically, there is no ground for such a declaration.

3d. We have had a fair share of experience in plantation practice, and we have never observed that "confidence which negroes are apt to place in neatly preparad and tasteless remedies." On the contrary, real familiarity with negro characteristics teaches us that the plantation negro has little confidence in a remedy which is not possessed of disagreeable taste or smell, or both.

4th. It is not "the want of properly prepared and genuine medicines" which induces planters to resort to secret nostrums. Planters know little or nothing of the stupendous frauds practised on them by the vendors of so-called "plantation medicines," and it is because they care too little· They can procure good and reliable medicines from honest dealers if they choose, but they are either negligent or parsimonious, and hence the trouble. They buy "secret nostrums" for the same reason that thousands of other men pursuing other occupations buy them—viz: because it is the frailty of man to seek to be humbugged.

5th. The argument (!) that "these sugar-coated pills are well suited, also, to the modern practice of simplifying prescriptions," is the frailest fabric that ever emanated from an honest brain. It really looks to us as if the author had squeezed his aching pate for an idea to advance in favor of that which he must puff, although he knows it to be unworthy of his effort. "The skillful physician now" does "expect to determine with greater certainty the character and seat of the disease," because at the present day we have more extended means at our command for effecting this end; but this same skillful physician prescribes a simple or a compound, as may be indicated by the condition of his patient, and not a simple because it is neatly put up in sugar by Tilden & Co. For shame on such prostitution of the noblest calling on this earth of ours! We blush to know that the name of one of our number stands under such a paragraph.

6th, and last. In the pages of this journal we have published the evidence of the medicines of Tilden & Co. being unreliable; we can personally assert that such as we have tried are so; Messrs. Tilden & Co. manufacture our U. S. "Compound Cathartic Pill," and substitute something else for the calomel, in order to pander to the popular prejudice; Their pill has been found to act injuriously (see Boston Journal); and all honest physicians should condemn, rather than puff them. Once more, we call on our brethren to test the remedies they are pouring down the throats of their patients. The rage is for "sugar-coated pills," and there are men who think none but manufacturing pharmacuetists can coat pills with sugar. To the city physician we would say, write your own prescriptions and order your pills sugar-coated if you please; to the country physician, carefully examine and compound your own medicines, and then roll your pills in sugar if you please. They will not be quite so handsome as those now selling in the market by the cart-load, but you will know what they are, and you have no right to give them unless you do.

MEDICAL SCHOOL STATISTICS FOR 1858–9.—We herewith present our readers with all the information we can collect in relation to the late Classes of the Medical Schools in this country:

		Matriculates.	Graduates.
Jefferson Medical College	Philadelphia	570	256
University of Pennsylvania	"	410	140
University of Nashville	Nashville	436	103
University of New York	New York	350	128
University of Louisiana	New Orleans	333	97
Medical College of South Carolina	Charleston	195	—
College of Physicians and Surgeons	New York	180	58

		Matriculates.	Graduates.
Medical College of Georgia	Augusta	165	58
New Orleans School of Medicine	New Orleans	164	36
Pennsylvania Medical College	Philadelphia	130	33
University of Michigan	Detroit	143	—
Harvard University	Cambridge	139	30
St. Louis Medical College	St. Louis	135	40
Phliadelphia College of Medicine	Philadelphia	70	19
New York Medical College	New York	107	25
Medical College of Ohio	Cincinnati	139	32
Kentucky School of Medicine	Louisville	103	28
Missouri Medical College	St. Louis	—	23
Rush Medical College	Chicago	—	31
University of Vermont		80	20
University of Buffalo	Buffalo	67	13
Shelby Medical College	Nashville	53	11
Albany Medical College	Albany	—	48
Medical School of Maine		50	—
Savannah Medical College	Savannah	34	8
Dartmouth Medical College	Dartmouth	—	9
Cleveland Medical College	Ohio	—	—
Starling Medical College		—	—
Oglethorpe Medical College	Savannah	—	—
Memphis Medical College	Memphis	—	—
Medical College of Virginia	Richmond	70	20
University of Virginia		—	—
University of Maryland	Baltimore	—	—
Yale Medical College	New Haven	—	—
Castleton Medical College		—	—
Berkshire Medical School		—	—
University of Iowa		—	—
University of Louisville	Louisville	—	35
Woodstock Medical College		—	—
Geneva Medical College	Geneva	—	—
Atlanta Medical College	Atlanta	—	—

It is with especial pride that we point to the position of the New Orleans School of Medicine on this list. In her third session, in spite of opposition, rivalry, a late yellow fever epidemic, and other obstacles, she has, as a strictly private enterprise, based only on industry and merit, risen to the position of No. 9 in the list of 41 Colleges in this country.

"Medical and Literary Weekly."—We have received the first number of a very handsome sheet bearing the foregoing title, and edited by Drs. V. H. Taliaferro and A. G. Thomas, at Atlanta, Georgia. The editors have undertaken the herculian task of enlightening the people in medical matters, hoping thereby to neutralize the efforts of quacks to gull and cheat poor sick humanity. We hope they will succeed, though we doubt it, as it requires some degree of mental exertion to understand well the foundation of our art and science, while it requires none at all to believe the thousand and one falsehoods daily published by quacks in our papers. Vanity and indolence are still two of man's glaring characteristics, and while such is the case he is not to be reached, *in the mass,* by reason on topics not directly connected with his own special avocation. His vanity leads him to believe that he knows enough to judge of the relative merits of physicians and so-called quacks (as homœopaths, hydropaths, *et id omne genus*), and his indolence shuts the door on enlightenment.

Prof. Austin Flint's Report on Pneumonia will be found most highly interesting to the readers of our journal, and it will serve to show what the practical advantages of a student in the New Orleans School of Medicine are. Such a sum of practical observation of a single important disease, under *one* of his teachers, tells clearly that the great field, under all his teachers, is almost unlimited. Apropos—the friends of the new school will be delighted to know that Prof. Flint returns to his post early next fall, and with renewed energy and determination to make his teachings the most valuable our city has ever known.

School Items.—A new Medical School has been organized in California, and it holds its sessions in summer. We wish the enterprising gentlemen of the Faculty success in their undertaking, though we fear they are a few years in advance of the times.

A division of the Faculty of the Chicago School has taken place, and the reorganizing of the same, together with the editing of the Journal, seems to have fallen on the shoulders of Prof. Brainard. A letter writer in the Medical and Surgical Reporter, says that Prof. Davis and others, who have seceded from the old school, contemplate starting a new school on a new plan.

Dr. Evans's Valedictory.—At the request of the late graduating class of the New Orleans School of Medicine, we publish in this number the valedictory address delivered by Dr. A. D. Evans, of Alabama. We are satisfied that its perusal will afford much pleasure to the reader, as it is one of the neatest and most appropriate productions of the kind we have ever met with.

Our Number.—Our patrons will perceive that we furnish them eight additional pages in this number. We do this in response to the liberal payments lately made, and we promise to do in this way all that the pecuniary means furnished will allow. We have still a long list of old delinquents owing us from $15 to $26, and we appeal to them again.

Report of the Deaths in the City of New Orleans, from the 20th of February to the 24th of April, 1859.

For week ending Feb. 27th—Men, 49 ; women, 22 ; Boys, 23 ; girls, 29 ; adults, 71 ; children, 52 ; males, 8 ; females, 41. Total, 123.

Principal Diseases—Consumption, 22 ; infantile convulsions, 5; scarlet fever, 5; inflammation of lungs, 14; infantile marasmus, 5 ; still-born, 3.

For week ending March 6th—Men, 36 ; women, 12 ; boys, 38 ; girls, 25 ; adults, 48 ; children, 63 ; males, 74 ; females, 37. Total, 111.

Principal Diseases—Consumption, 19 ; infantile convulsions, 7; croup, 5; inflammation of lungs, 6; inflammation of throat, 6 ; trismus nascentium, 5 ; stillborn, 6.

For week ending March 13th—Men, 48 ; women, 22 ; boys, 26 ; girls, 22 ; adults, 70 ; children, 48 ; males, 74 ; females, 44. Total, 118.

Principal Diseases—Consumption, 14 , infantile convulsions, 9 ; chronic diarrhœa, 8 ; inflammation of throat, 5 ; still-born, 5.

For week ending March 20th—Men, 40 ; women, 16 ; boys, 18 ; girls, 22 ; adults, 62 ; children, 40 ; males, 64 ; females, 38. Total, 102.

Principal Diseases—Consumption, 21 ; dropsy, 7 ; still-born, 6.

For week ending March 27th—Men, 33; women, 19; boys, 29; girls, 26; adults, 52; children, 55; males, 62; females, 45. Total, 107.

Principal Diseases—Consumption, 13; inflammation of lungs, 10; inflammation of throat, 10; small pox, 6; still-born, 8.

For week ending April 3d—Men, 43; women, 15; boys, 17; girls, 24; adults, 58; children, 41; males, 60; females, 39. Total, 99.

Principal Diseases—Consumption, 15; chronic diarrhœa, 6; inflammation of lungs, 10; trismus nascentium, 5; still-born, 4.

For week ending April 10th—Men, 42; women, 16; boys, 37; girls, 13; adults, 58; children, 50; males, 79; females, 28. Total, 108.

Principal Diseases—Consumption, 19; infantile convulsions, 5; inflammation of lungs, 7; inflammation of throat, 6; still-born, 4.

For week ending, April 17th—Men, 37; women, 30; boys, 37; girls, 30; adults, 67; children, 67; males, 75; females, 60. Total, 135.

Principal Diseases—Consumption, 17; infantile convulsions, 9; chronic diarrhœa, 5; congestive fever, 5; scarlet fever, 7; inflammation of throat, 9; small pox, 5; still-born, 5.

For week ending April 24th—Men, 42; women, 20; boys, 39; girls, 37; adults, 62; children, 76; males, 81; females, 57. Total, 138.

Principal Diseases—Consumption, 15; infantile convulsions, 11; chronic diarrhœa, 7; scarlet fever, 8; inflammation of lungs, 6; trismus nascentium, 8; still-born, 8.

BOOKS AND PAMPHLETS RECEIVED.

"*Contributions to Operative Surgery and Surgical Pathology.* By J. M. CARNOCHAN, M.D., Professor of Surgery in the New York Medical College, etc. With illustrations drawn from nature. Philadelphia: Lindsay & Blakiston. 1858."

Through our friends, J. C. Morgan & Co., post office building, we are in receipt of No. 2 of this valuable and finely executed work. Prof. Carnochan is, we think, the surgeon of New York city—not meaning to detract at all from his worthy co-laborers.

Why have not the publishers sent us No. 1? We hope this is not sent merely as a "specimen" of what they can do.

"*Report on the Functions of the Cerebellum.* By E. ANDREWS, M.D., Chicago, Ill. Extracted from the Transactions of the American Medical Association. Philadelphia: Collins, printer. 1858."

A highly interesting pamphlet, and richly worth a careful perusal.

"*An Essay on the Treatment of Cataract.* By MARK STEVENSON, M.D., etc., etc. Read before the American Medical Association, at the city of Washington, May 6th, 1858. Philadelphia: Collins, printer."

Another very elaborate and valuable essay, and highly creditable to the author.

"*Remarks on the Employment of Pessaries, with the description of a new instrument; with illustrations.* By E. NOEGGERATH, M.D., of New York. Reprinted from the New York Journal of Medicine for September, 1858. With additional remarks."

The object of this pamphlet is to bring into notice the pessary of Zwank, of Hamburg, as modified by Dr. Eulenberg, of Coblenz. Certainly the profession are yet in want of *the* pessary, all the instruments we have being imperfect. When we see one of Zwank's pessaries we will try it.

"*New Surgical Treatment for Malformation of the Bladder.* By DANIEL AYRES, M.D., LL.D., Brooklyn, New York." Or, "*Congenital Exstrophy of the Urinary Bladder, and its Complications, successfully treated by a new plastic operation* (*illustrated*). By DANIEL AYRES, etc. 1859."

This is a highly interesting pamphlet to all surgeons, and Dr. A. deserves the greatest praise for his success.

"*The Hymen: An Essay delivered* (by appointment) *before the New York Medical Union.* By T. GAILLARD THOMAS, M.D."

We are much indebted to the talented and accomplished author for this most valuable and interesting pamphlet.

"*Some Account of the Recent Experiments made in connection with the case of M. Groux.* By J. B. UPHAM, M.D., Boston."

This is another most interesting and instructive pamphlet, for which we are under obligations to the author.

"*The Management of the Shoulders in Examinations of the Chest; including a new physical sign: read before the New York Academy of Medicine.* By JOHN W. CORSON, M.D., etc."

Another highly instructive essay on a very important branch of Medicine, and one which proves the author to be a thinking man.

"*Valedictory Address to the Graduating Class of the Philadelphia College of Medicine.* By J. AITKEN MEIGS, M.D., Professor, etc."

"*State University of Michigan. Catalogue of the Officers and Students for* 1859."

"*Catalogue of the Faculty, Trustees and Students of the Medical College of the State of South Carolina. Session of* 1858, '59."

"*Sixteenth Report to the Legislature of Massachusetts, relating to the Registry and Return of Births, Deaths and Marriages in the Commonwealth, for the year ending December* 31*st*, 1857. By OLIVER WARNER, Secretary of the Commonwealth."

One of the most valuable and interesting reports of its kind ever issued.

List of Payments to April 26, 1859.—Drs. W. Levéque, vols, 2, 3, 4, 5 and 6, $23; S. F. Turner, vol. 6, $5; K. G. McRae, vol. 6, $5; G. Alexander, vols. 5 and 6, $10; S. N. Bemiss, vol. 5, $5; Wm. Mixson, vol. 6, $5; Barbe, (N. O.) vols. 4, 5 and 6, $15; T. G. Cowdin, vol. 6, $5; John Butts, vol. 6, $5; Chas. A. Kincaid, vol. 6, $5; W. H. Childress, vol. 6, $4, on account; S. H. Rives, $10 41, on account; J. Huguet, vols. 4, 5 and 6, $15; W. H. Huger, vols. 5 and 6, $10; W. C. Ravenel, vols. 5 and 6, $10; J. B. Dungan, vol. 6, $5; T. N. Carter, vol. 6, $5; W. P. Sunderland, vol. 5. $5; R. Schlater, vols. 5 and 6, $10; A. A. McWhorter, vol. 6, $5; Dorris, vol. 6, $5; J. M. Bratton, vols. 3, 4, 5 and 6, $20; R. R. Applewhite, vol. 6, $5; S. B. Fluitt, vols. 5 and 6, $10; H. D. Baldwin, vol. 5, $5; T. T. Russel, vol. 5, $5; H. Bouldin, vol. 5, $5; Labatut, (N. O.) vols. 5 and 6, $10; Esquere, (N. O.) vol. 4, $5; E. S. Drew, vol. 6, $5; Grosart, (N. O.) vol. 6, $5; Gunther, vol. 5, $5; E. D. Hyde, vol. 6, $5; Jas. Syme, vol. 6, $5; C. F. Chamberlin, vol. 6, $5.

Our Editorials.—Henceforth our readers will please remember that all editorials appearing in this journal, while I am editor, are written by myself, (unless another signature appears attached), and that I am wholly responsible for the same.

D. Warren Brickell.

EXCERPTA.

Past Duration of the Human Race.—Man, alone, with one of the beasts which he has domesticated—the dog—is cosmopolitan. The human species is represented by a few well marked varieties; and there is a certain amount of correspondence between their localities and general zoölogical provinces: thus the Australian variety of man is as well marked and circumscribed as the Australian fauna generally; the Papuans of New Guinea present the same difference from, with degree of affinity to, the Australians, as we find in comparing the respective faunæ of Papua and Australia. But with regard to the elleged conformity between the geographical distribution of man and animals, which has of late been systematically enunciated, and made the basis of deductions as to the origin and distinction of the human varieties, I would submit the following remarks as affecting the system referred to. Using Blumenbach's term in the sense of the latter terms "Indo-European" and "Arian," we find the "Caucasian" race extended from Iceland to the mouth of the Ganges. There is no corresponding distinction in the animals and plants of the Europæo-Asiatic continent, which is bi-sected by the oblique line dividing the Mongolian from the Caucasian varieties of mankind. The Persian fauna extends into Tartary; the Himalayan into Thibit. As two primary varieties of mankind exist in one great zoölogical province in the Old World, so a third great variety extends over at least two zoological provinces in the new world. All authors divide the North American or "Nearctic" from the South Amerian or "Neotropic" region, whatever class of organic life they may treat of geographically; but the red or copper-colored American is the same, physically and linguistically, to the extent of the characteristics of a primary race, from the 60th degree of north latitude to the 53d degree of south latitude. The Lapps of Arctic Europe differ linguistically and physically, as a race, from the Norwegians and Swedes; the zoölogical province is essentially one. As such it extends over the same parallels of latitude in America, where the Mongolian, Esquimaux and the American Chippawas inhabit. The Hottentots and Kaffirs are more distinct, linguistically and physically, than the former are from equatorial Negroes, or the latter from the Nubians; yet they both inhabit one well-marked zoölogical province, South Africa. Two varieties of mankind—the Papuan and Malayan—inhabit Borneo and other islands at the eastern part of the Indian Archipelago—these islands forming one and the same zoölogical and botanical province. Not less than twenty colors have been found requisite to indicate in a map of the British islands the different varieties and sub-varieties of the human race that have contributed to its miscellaneous population. Other facts of the same kind might be cited, affecting the conformity of the distribution of man with that of the lower animals and plants, as absolutely enunciated in some recent works. Nor can we be surprised to find that the migratory instincts of the human species, with the peculiar endowment of adaptiveness to all climates should have produced modifications in geographical distribution to which the lower forms of living nature have not been subject. It is only since man began to exercise his privilege and power that the geographical laws in regard to the lower animals of existing species have begun to be blotted out. Ethnology is a wide and fertile subject, and I should be led far beyond the limits of an inaugural discourse were I to indulge in an historical sketch of its progress. But I may advert to the uniform testimony of different witnesses—to the concurrence of distinct species of evidence—as to the much higher antiquity of the human race than has been assigned it in historical and geneaological records. Mr. Leonard Horner sagaciously discerned the value of the phenomena of the annual sedimentary deposits of the Nile in Egypt as a test of the lapse of time during which that most recent and still operating geological dynamic had been in progress. In two memoirs communicated to the Royal Society in 1855 and 1848, the results of ninety-five vertical borings through the alluvium thus formed are recorded. In the excavations near the colossus of Rameses II, at Memphis, there were 9 feet 4 inches of Nile sediment, between 8 inches below the present surface of the ground and the lowest part of the platform on which the statue had stood. Supposing the platform to have been laid in the middle of the reign of that King—viz: 1361, B. C.—such date added to A. D. 1854 gives 3215 years, during which time the above sediment was accumulated, or a mean rate of increase of three and a half inches in a century. Below the platform there were 32 feet of the total depth penetrated; but the lowest two feet consisted of sand, below which it is possible, there may be no true Nile sediment in this locality, thus leaving 30 feet of the latter. If that amount has been deposited at the same rate of 3½ inches in a century, it gives for the lowest part deposited and age of 10,285 years before the middle of the reign of Rameses II, and 13,500 years before A. D. 1854. The Nile sediment at the lowest depth reached is very similar in comparison to that of the present day. In the lowest part of the boring of the sediment at the colossal statue in Memphis, at depth of 39 feet from the surface of the ground, the instrument is reported to have brought up a piece of pottery. This, therefore, Mr. Horner infers to be a record of the existence of man 13,371 years before A. D. 1854—" of man, moreover, in a state of civilization, so far, at least, as to be able to fashion clay into vessels, and to know how to harden them by the action of a strong heat." Professor Max Muller, has opened out a similar vista into the remote past of the history of the human race, by the perception and application of analogies in the formation of modern and ancient, of living and dead languages.—*Prof. Owen's Inaugural Address to the British Association.*

Tracheotomy.—Dr. Brainard, of the Chicago Medical Journal, gives the following as his method of preventing hemorrhage in this operation, and keeping the opening in the trachea pervious without resorting to a tube: " Having incised the skin and fascia by successive and careful incisions, I press the sterno-hyoid and sterno-thyroid muscles to each side with the fingers, and thus expose the thyroid body. This effected, I pass under the isthmus a director curved or an aneurismal needle. This is followed by a common suture needle, which may be passed with the blunt end foremost, armed with two very strong ligatures. A ligature is then tied very firmly on each side, and the isthmus of the thyroid body divided between them. A little dissection with a blunt instrument denudes the trachea to the required extent, and an opening can be made without a drop of blood being drawn into it. The ligatures which have been thus secured, save the purpose of fixing the trachea, if desirable, and they may be tied behind the neck so as to raise it forward and keep the wound open.

"The necessity of using the tube I avoid by the following means: Having denuded the trachea, insert a small suture needle, armed with a ligature beneath two of its rings. Withdraw the needle, and drawing gently upon the thread, make a semi-circular incision on one side so as to form a *valve*, readily opened by drawing upon the thread. The opening thus formed can be kept patent or be allowed to close at will."

Preparation of Anti-Asthmatic Cigarettes.—By M. Dannecy, Pharmacien of Bordeaux. Some of the properties of stramonium and belladonna—which plants, when smoked, justly enjoy the reputation of relieving asthma, and which are employed with the most undoubted success in the treatment of neuralgia—exist also in plants abounding in nitrates. Thus I have seen patients who had experienced great relief from the use of the leaves of borage pellitory plants, containing, as is well known, much nitrate of lime.

The fault which almost all patients find with narcotic plants, smoked in pipes or in the form of cigarettes, is a copious production of smoke, which fatigues them and sometimes excite cough—a symptom they are, on the contrary, employed to allay.

In order to obviate this inconvenience, I have added nitre to the leaves of belladonna and of stramonium, by watering these plants, dried and conveniently spread out, with a solution of nitrate of potash, in the proportion of three ounces of the salt to rather more than two pounds avoirdupois of the plants. It will be easily understood, that as this solution penetrates the entire vegetable tissue, the latter will, when dry, burn completely, without the formation of the pyrogeneous products above alluded to.

I have for many years prepared cigarettes according to this formula, and the benefit derived from their use by a great number of patients induces me to publish it, and to call the attention of practitioners to this mode of treatment, consisting in the smoking of narcotic plants combined with nitre.—*Journal of Materia Medica.*

STRYCHNIA IN THE ADULTERATION OF ALCOHOLIC LIQUORS.—Dr. Henri Erni, in an article in the Peninsular and Independent Medical Journal, denies that strychnia is ever used for the adulteration of alcoholic liquors; 1st, because it would be detected by its intensely bitter taste, which is evident when dissolved in seven hundred thousand parts of water; 2d, because of its high cost; 3d, because it is a most dangerous poison, and one which, unlike most organic poisons, can be readily detected by chemical tests. With regard to malt liquors, Dr. Erni states that this poison cannot be introduced into them together with hops, since the tannic acid, which these always contain, precipitates strychnia completely, in the form of an insoluble compound. As a substitute for hops, it would be much less likely to be employed than aloes and many other bitter drugs, on account of its high price.

FŒTID BREATH.—*To the Editor of the Lancet:* Sir—The subject of fœtid breath and its kindred annoyance, fœtid perspiration, particularly that of the feet, is of too much importance to the happiness of the sufferers from this cause, and their friends, to be passed over lightly. I am induced to send you the result of my observations upon it.

A fœtor of the breath and of the feet alternates the one with the other. The arrest of fœtor of the feet is followed by that of the breath, and *vice versa.*

A fœtor of the breath proceeds from the sebaceous follicles of the tonsils; that of the feet, from the sebaceous follicles between the toes, also in the armpits and ilia. This in some cases is so penetrating, so offensive, as to cause the subject of it to be shunned even by the members of his own family. Several cases of this kind have been successfully treated as follows:

1. To avoid all strong-scented articles of diet, such as cheese, hashes, meat-puddings and pies, smoked meats and smoked fish, fried meats and fried fish, and the outside brown fat of roast or boiled meats.

To promote the sebaceous secretion, the vapor-bath has been prescribed, and, as an alterative, the decoction of polygala senega-root.

I remain, sir, yours truly,
J. PIDDUCK, M. D.

FACILE MODE OF CUPPING.—*To the Editor of the Lancet:* Sir—A correspondent in The Lancet makes an excellent suggestion for the manufacture of cheap cupping-glasses of common green glass, such as may be readily and not grudgingly used by any one when leeches are not to be had.

Let me offer a suggestion for a safe and easy mode of exhausting them, free from all the trouble of pumps and the danger of spirits and ethers, and which will answer equally well with a wine or liqueur glass as the best ground cupping-glass.

Wipe the glass you select for use quite dry, drop into the bottom of it one drop of melting wax from the candle in your hand: on this lay the smallest imaginable dossil of gun cotton, a morsel not larger than a grain of rice will be enough. The softness of the wax will suffice to keep this *in situ* if but one fibre is entangled. Then set fire to it with a bit of lighted paper, holding the mouth of the glass up, and its edge close to the part of the body on which you mean to apply it. At the instant of the puffy explosion, invert the glass on the part. The vacuum formed is perfect, and the action immediate. You have no ugly scalds from half extinguished ether, no flames from its droppings on the patient's dress, etc. The cotton may be carried about quite safely in the head of your lancet-case; and instead of the deep ugly gashes of a scarificating machine, a few light superficial cuts rapidly made with the shoulder of a lancet over the part will give less pain, less fright, and more blood.

Yours obediently,

D. STEWART.

WARLEY DEPOT, February, 1859

WURTZER'S OPERATION FOR THE RADICAL CURE OF INGUINAL HERNIA.—Dr. W. W. Goodwin reports, in the Louisville Medical Gazette his success in this operation, and says: "It is estimated that one-tenth or one-twelfth of the human family, at some period of life, are subjects of the disease in some form, and that eighty per cent. of the cases are inguinal; from which the great importance of any efficient operation, which is at the same time free from danger, is apparent. The success of the operation, thus far, has been very satisfactory; the few failures that have occurred were principally in cases of long standing, when the rings and canal were greatly enlarged, or from imprudence on the part of patients. In some instances the operation had to be repeated before the cure became permanent. In those cases where the rings and canal are not much enlarged, I am confident that the radical cure may be relied on with the utmost certainty. The operation is almost painless, and almost entirely free from danger. From the best information I can get, it has been performed between two and three thousand times without one fatal result, or any serious suffering or apparent danger in any case. More cannot be said of the most trivial operation in surgery.

"Dr. G. recommends a light truss and broad pad to be applied when the patient first assumes the erect posture. The introduction of irritants on the cylinder, as cantharides ointment, as recommended by Rothermel, he thinks entirely unnecessary, and does not believe that it favors the adhesion between the serous surfaces of the inguinal canal and invaginated scrotum, nor that the adhesion of the integumentary surfaces of the plug adds anything to the success of the operation, but regards the occurrence as a positive evil in the event of the failure of the operation, as it would interfere with its repetition."

SULPHATE OF CINCHONIA.—Dr. John T. Plummer, of Richmond, Indiana, who lets few things escape his observation in the literature of medicine, communicates to the Lancet and Observer some observations and experiments on the use of sulphate of cinchonia in intermittent fever, made by

Marianini, Bardsley and others, which were published thirty years ago. The conclusion to which they came was that it was scarcely inferior to quinia in the treatment of that disease. Marianini considered it as equal to the sulphate of quinia, besides possessing the advantages of less bitterness and greater solubility in water. He generally gave thirty grains, divided into three portions, during the day (the apyrexia?) though he sometimes gave as high as twenty grains at a dose.

CAUSTIC CYLINDERS OF GUTTA PERCHA AND CHLORIDE OF ZINC.—This preparation may be made after the following formula:

℞——Gutta Percha (clean)..................4 oz.
Chloride of Zinc......................2 "
Distilled water (warm), sufficient quantity.

Dissolve the chloride of zinc in the smallest possible amount af the warm water. Fuse the gutta percha in a porcelain capsule, over a gentle heat (just enough to liquefy it thoroughly, a greater heat will alter the properties of the gutta percha so that on cooling, it will not return to its original rigid condition), and throw in the concentrated solution of chloride of zinc, and stir in as thoroughly as possible so as to make the mixture, which is mechanical to a great extent, as complete as may be. When the moisture is judged to be all dissipated, allow the whole to cool gradually, constantly stirring, and when the mass becomes plastic remove it from the capsule, and fashion it into cylinders of such sizes as will adapt it to its various applications.

NEW ORLEANS

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QUININE:

THE IMPORTANCE OF UNDERSTANDING, AND A THEORY RELATING TO, ITS MODUS OPERANDI.

By Wm. A. Booth, M. D., Canton, Miss.

Quinine bears the same relation to Peruvian bark that morphia does to opium, strychnia to nux-vomica, santonin to chenopodium.

All these quintessences are wonderful demonstrations of the power and utility of chemistry. The stomach, however delicate, had formerly to bear, as best it could, a nauseating load of powder before it could receive the benefit of the curative portion of the drug.

In the olden time, drug was an appropriate expression and the patient had to be drugged. Now, by the aid of science, drugging is rarely necessary. The *doses* of the active principles separated from their irritating and bulky coverings are so minute that they can, almost always, be pleasantly administered, and the danger is beginning to be evident *that the dear common-sense people*, with a nostrumvendor always in hearing, and a nostrum-puff always in sight, are becoming too much, instead of being too little, disposed to take medicine.

All the "active" principles are useful, but chemistry deserves most credit for extracting the essential element from cinchona, and for this, the South especially, owes it eternal gratitude.

We place the discovery of quinine above all chemical discoveries for southern latitudes, because of its universal applicability to southern diseases. It fills indications which render it appropriate or necessary in the beginning, during the continuance, or at the termination of every protracted case occurring in malarious lands; and being so universally applicable, it would be exceedingly disastrous to the success of the physician, if it had to be administered in combination with woody, or other irritants, which might cause its rejection by the stomach, and prevent its good effects by the increase or production of irritation or inflammation of the mucous lining of the alimentary canal.

But quinine is not interesting simply because it gilds with additional eclat the utilitarian science of chemistry, and is so generally applicable to southern disease. Its study becomes a matter of great moment when, in connection with its vast importance, we learn at the bed-side that the frequent absence of any correct notion of its modus operandi is an opprobrium to physicians, and robs practical medicine of much attainable success.

A man who practices upon an erroneous theory, practices dangerously in proportion to the magnitude of his theoretic errors.

A fixed principle, a correct theory, is, therefore, exceedingly important in relation to the modus operandi of a medicine so intrinsically important, and so generally applicable as quinine.

Almost every physician is either silly enough to deceive himself, or possesses sufficient skill to deceive others into the belief that he understands this subject, by using that beautiful compound word ANTI-PERIODIC. This term, thus used, is exceedingly unscientific; and unscientific terms are dangerous instruments, when used by scientific men. They conceal ignorance and check investigation.

No scientific physician willingly admits the existence of specifics. Such an admission is a germ of quackery. The opponent of quackery *must* contend for a logical connection between the virtues and the effects of a medicine.

Calomel has a tendency to cure hepatic disease, not by shooting a mysterious influence at such disease, but by its peculiar power of controlling and regulating the action of the secretory glands and the liver as one of these glands. Thus it is with every other medicine. If we understood their modus operandi, we could follow each general remedy step by step, as it touches the skin, travels down the alimentary canal, or glides with the wind into the respiratory organs, and thence wanders along the red and white circulatory systems, purifying the fluids here, quieting or strengthening a nerve there, correcting the action of a gland yonder, to the grand curative effect.

Is quinine an exception? Actuated by an instinctive hatred, does it jump from the stomach directly upon its great enemy, periodicity?

I think not. Quinine *is a remedy.* Periodicity *is not disease.* It is a mere *effect* of disease.

Again. If science denies the existence of specifics, and asserts that there is a logical, traceable connection between the virtues and the effects of all medicines, we are clearly justified in asserting, that the same is true of quinine, that it conquers the effect, periodicity, by combatting, or removing the diseased condition which produces that effect.

WHAT THEN IS THE MODUS OPERANDI OF QUININE? *Is it sedative or tonic?* If sedative means *quiescent*, then quinine may be *indirectly* a sedative.

However excusable a non-professional man may be for thus defining it, there is no satisfactory excuse for the professional. Ignorance or thoughtlessness are the only honest pleas the latter can file in their own defence.

Technical accuracy in the use of technical terms is absolutely essential to the accurate understanding of medical subjects or the sensible conducting of any argument. Sedative, *technically defined*, is a medicine which has *a direct tendency to depress the vital powers.*

Hydrocyanic acid is a sedative. Would you give this acid in collapse? Do hydrocyanic acid and quinine belong to the same class? Would you not fearlessly give quinine in some cases of depression and collapse?

I have, in cases of *pure* debility, when the pulse was weak, quick and flickering, alternated it with wine, the tonic effect of each being precisely the same.

The fact is, so far from being a sedative, quinine is a nervous tonic, and by the tone it imparts to the nerves enables them to restore the equilibrium of the circulation, to remove the congestion its derangements occasion, and thus becomes *anti-congestive, and is anti-periodic, because it is anti-congestive.*

This last clause is easily explained. All periodic diseases begin their attack by some derangement, some irregularity of the circulatory system. Congestion necessarily results from this derangement or irregularity. The nerves control the circulation, and quinine *prevents* its derangement and the consequent congestion, by imparting *tone* to these nerves *at the very moment* the morbific cause is attempting to rob the circulation of their controlling power, by *depressing* and *weakening* them.

But the great blunder of many physicians consists in regarding this remedy only as anti-periodic, when the theory that it will *prevent* congestion leads by the strictest principles of deduction to the conclusion that it will *relieve* congestion.

And the logic which thus concludes has been sustained by experience. Hence the successful administration of quinine during the continuance of fever. Hence the fact, that it will frequently *arrest* pleurisy, pneumonia and other inflammatory affections *when administered in their forming stage.*

Congestion is the first stage of inflammation. Inflammation is nothing more than a fixed and active state of congestion.

A patient complains of a pleuritic or pneumonic pain. His feet are cold—his pulse unchanged or somewhat irregular or depressed. He has only been attacked a few hours. Make him go to bed, cover him up well, have hot bricks applied to his feet, lay a large mustard plaster on his breast and give him ten or twenty grains of quinine.

The probability is that the congestion will be removed, the inflammation never appear, the case be cured, and you have no opportunity of pouring in tartar emetic, witnessing the magic power of veratrum, or making a long bill.

A few years ago the following case came under our observation in the City of Memphis:

A boy about five or six years old had a congestive chill.

His extremities continued cold, and he became insensible. It was a clear case of congestion of the brain. The attending physician said, "send for some one else, I am totally at a loss what to do. Quinine will increase the congestion of the brain, and if the boy does not take it, the chill to-morrow will kill him."

The consulting physician came. He said: "The treatment required is very plain. The boy has congestion of the brain. Quinine is anti-congestive. Therefore it should be given immediately to *relieve* the existing congestion, and continued to prevent the possibility of an exacerbation to-morrow."

The attending physician declined having any connection with such dangerous treatment. The consulting physician assumed the responsibility. Quinine, with the usual adjuvants in such an attack, was given in large doses. The nerves strengthened by its *tonic* power enabled the blood vessels to relieve themselves of their surplus load; the head became clear, the extremities warm—the boy recovered.

Another case not only illustrative of this position, but *demonstrative* of the fact that quinine is anti-congestive, without any reference either to the periodicity of disease or its malarious origin, is the following: Two physicians found a patient in the condition of the one above described. They agreed in considering it a clear case of congestive fever—the brain being the organ principally affected.

The consulting physician proposed cupping, blistering, etc. The family physician insisted on large doses of quinine. The course advised by the latter was adopted. The next morning the patient was sensible, his extremities warm, *and his body beautifully "broken out" with the small-pox!*

In discussing its modus operandi, it is proper also to mention that quinine is not *a permanent* remedy. Whatever it does, it must do quickly. Thirty grains given to a patient to-day has but little tendency to keep off a chill to-morrow. Its administration should therefore be well timed. Beginning a few hours too late, or stopping a few hours too soon, may prove dangerous or fatal. Continuing it too long may increase or produce irritation of the mucous lining of the alimentary canal.

Again, as every malarious fever is more or less congestive, quinine may be resorted to, *at some periods,* in each, with a reasonable prospect of modifying or "breaking" it; and unless some unusual and palpable contra-indication exists, it is highly important, where such disease is indigenous, to administer it in every case of idiopathic fever within twenty-four or forty-eight hours from its commencement. Our experience, running through a score of years, justifies us, we think, in believing that when thus judiciously given it sometimes unexpectedly "*cuts* the attack short," and frequently, though failing to do this, renders the most protracted case more manageable than it would otherwise have been. It may do this, according to our theory of its action, by *lessening,* when it cannot *remove* the primary congestion.

We are also satisfied that moderate doses, say five grains repeated four times, will generally have a better effect than a large dose, say twenty grains, given at once.

These minutiæ are, however, comparatively unimportant. It is almost impossible for one physician to teach another the details of his practice.

A clear comprehension of southern disease, the southern physique, and the modus operandi of each remedy, are absolutely essential to the successful application of the latter.

It will not therefore be amiss to recapiulate in a condensed form, what we deem *the peculiar action, the practical* qualities of the great southern remedy—quinine.

1st. It is a nervous tonic, imparting tone especially, if not exclusively to the nerves that control the circulation.

2d. Being a tonic of this sort, it is necessarily ANTI-CONGESTIVE, *preventing* and *relieving* congestion by the same modus operandi.

3d. It is eminently anti-periodic; but it is anti-periodic because it is tonic and anti-congestive.

4th. Its action is quick, decided and evanescent. If it does good, it will do it quickly.

5th. It *sometimes*, slightly irritates the gastro-enteric membrane.

MARCH, 1859.

CALOMEL VERSUS CONSTIPATION.

By T. J. HEARD, M. D., Galveston, Texas.

MESSRS. EDITORS: The following case is not without interest, and I present it to your readers on its own merits:

Mr. B., aged about 35 years—of bilio-lymphatic temperament—eat a great quantity of cheese and crackers about the 1st of May, 1858. From this excess a severe attack of flatulent colic, associated with great gastric irritability and obstinate constipation, resulted. My partner, Dr. P., was called to him, and treated him in the most approved manner for five days. I was absent from town (Washington, Texas) at the time, and Dr. P. sent for me in consultation, not that he could reasonably expect any material aid from me, I being much younger than himself, but in order to be sure that all should be done for the patient. I called with him to see B., and a more miserable object I have never beheld. The Dr. had given everything that promised benefit, including croton oil by the mouth, and tobacco by the rectum. The poor fellow was cold and shivering from the intensity of the pain in his abdomen; tympanitis was as great as it could be, apparently; the pulse was a mere thread, and very frequent; the voice was sepulchral; thirst was intense; he had not slept during his illness, and his stomach rejected everything put into it.

We applied a mustard poultice over the whole abdomen, and left, to call again in six hours. At 8, P. M., we returned; he was in about the same condition; the abdominal pain had been so great that he did not feel the mustard, although it had produced a terrible blister. We requested Mr. A., at whose house the patient was staying, to have a coffin made that night, as there was hardly a doubt that he would die before morning, and the abdomen was so much distended that we anticipated its bursting soon after death. There seemed scarcely a doubt that the poor fellow was laboring under intussusception, and that the case was altogether hopeless.

Next morning, about 10 o'clock, I was passing the house on my way to the country, and I called to ask when poor B. died, and, to my utter astonishment, found him in about the same condition as that in which we left him. He immediately commenced imploring me to kill him—saying he knew he could not live, that his coffin had been made for him, and he was ready and willing to go—that he desired an end put to his suffering. I had, in my vest pocket, an ounce of calomel, which I made him swallow, only allowing water enough to wash it down. At 1, P. M., I called, and found that B. had slept about an hour, had taken some butter-milk, and had vomited but once. I reported this to Dr. P., at 2, P. M. He said the aparent improvement was not from the effect of the calomel, but was owing to loss of vitality in the invaginated intestine. At 4, P. M., I saw B. again. He had taken more butter-milk, and had slept some. I ordered for him 300 grains of calomel, and 20 grains of opium, to be divided into two powders—to be taken at intervals of three hours. At 8, P. M., both powders had been taken, and the patient was in about the same condition as at 4, P. M. We left two more powders as above. At 6, A. M., of the succeeding day I called to ask for B. On opening the door, behold, the bed was empty! I called for some one to tell me when poor B. died, when, from an adjoining room, the patient (a poor half-witted fellow) cried out—"what in the h—l do you want?" I asked, "is that you B.?" "Yes, it is nobody else." I asked, "what are you doing there?" He replied, "what in the h—l do you suppose I would be doing, after all that calomel?" B. was purged for one week, was not ptyalized, and was afterwards in better health than he had been for years.

The reader must determine whether the result ensuing on the administration of the calomel was coïncident or a genuine illustration of cause and effect. I give the facts as they occurred.

[As in all cases wherein great quantities and great variety of medicines are administered, it must be difficult to decide the question raised by this case. Of two things we feel well assured, however, viz: that these heroic doses of calomel rarely, if ever, do any harm, and that opium, to be given with benefit in intensely painful cases, must be given in heroic doses, or it is useless. We have, ourself, had a severe case of neuralgia in which not less than eight grains of the best pulverized opium, at one dose, and repeated in two hours, would produce relief; and within a year we have administered, with our own hand, four grain doses of sulphate of morphine, every six hours, for two days, to a case of idiopathic tetanus in an adult negro, with only the effect of producing gentle sleep. A less quantity of the remedy was utterly useless. We have long been satisfied that many patients suffer for the want of opiates and the kindred remedies in sufficient quantity, while the practitioner stands by with his judgment trammeled by the knowledge he has acquired of doses from the books or the lecture rooms.—D. W. B.]

LONDON CORRESPONDENCE.

London, April, 1859.

Messrs. Editors: In my last I promised, at no very distant time, to send you more gleanings by the way side, medical and general. In relation to the former subject we are enjoying a season of repose, the battle which has been waged with no severer weapon than the pen and the scalpel by gallant knights in Parliament, and scarcely by less gallant professional sons in the retirement of the study—has placed in substantial form, as you are aware, before the people of this country, a new medical act, from which much good to the medical profession, and to the public at large, is expected to arise.

The main feature of the bill is the registration of names of practitioners who shall be qualified according to its requirements. The requisite investigation by the new council, before 30,000 or more names can be enrolled, is a work of many months, and will not, it is believed, be completed earlier than July, and before this can be done the working of the new measure must be mainly presumptive.

On 16th of March the first of the annual series of lectures by members of the Royal College of Physicians, was given by Dr. Tweedie, in the presence of a number of Fellows and others, who were able to obtain tickets.

The subject was fevers—typhus and abdominal typhus—for so the lecturer designated them—and then, not in a very audible tone, yet in a methodical and clearly arranged manner, proceeded to point out from his large experience and observation, the peculiarities of each, which I may pass over hastily without giving your readers serious cause of regret, and without having occasion to thank the learned lecturer for anything new or striking in the elucidation of his subject. It will, however, be evident that each variety of the fever above named, is in some degree influenced by the climate in which it may occur, inasmuch as depletion according to the observation of Dr. Tweedie, is found, in abdominal typhus, to be frequently necessary in the treatment.

On 25th, the "Gulstonian Lectures" were commenced by Dr. W. Addison—the number being three, and the subjects embraced "therapeutical reactions," fever and inflammation. To the qualities of an original thinker and a ready expounder of opinions, Dr. Addison has superadded an agreeable manner as a lecturer.

Upon the non-identity of fevers, he insists, the mode of introduction into the system being by inoculation, or by the action of the atmosphere upon the blood corpuscles. Being absent from London a few days, was the reason that I failed to hear some of these lectures.

In the remaining three ("the Croonian") which are to be delivered by Dr. Brinton, I hope to be more fortunate, and if so, I may, at a future time, give you his views upon intestinal obstructions.

Witnesses, in their zeal to give testimony, sometimes (legal gentlemen tell us) prove too much, and injure the cause they wish to establish. So, despite the indisputable facts which researches with the aid of the microscope have established upon diseased solids and fluids of the body—are there, at the present time, to be found those elaborate observers who carry the identity of certain diseased actions so far as to disprove their own hypotheses, or as the case may in other words be stated—what one set of observers see and call disease, another set of observes see in *healthy* and unhealthy products.

The difference of opinion may be greatest perhaps upon malignant or non-malignant tumors.

The value of the microscope is, however, so great, and its use now so general, that we need be at no pains to dispute with casuists.

The Lancet will inform you of the removal of the remains of the late John Hunter from St. Martin's, in the fields, to Westminster Abbey, at 8 o'clock on the evening of 26th March, the final ceremony having been performed in the Abbey on the 28th, in the most quiet manner possible, that of perfect silence, save when the magnificent organ broke forth in deep and solemn tone. There was no oration.

A subscription is now on foot to place a statue to his memory, and the site most probably will be Trafalgar Square, if the purpose of an influential committee be fully carried out.

Opposed to this plan, is that of Mr. Chas. Hawkins, who urges the expenditure of money collected to found two or three Fellowships of £300 a year, to be awarded by the College of Surgeons. "Such a Fellowship would," says Mr. Hawkins, "enable students to prolong their education in that particular path of study Hunter shed such light upon."

There can be little doubt that the medical profession, and the committee, to whom at present is entrusted the management of the affair, will very essentially differ from Mr. Hawkins in the "light" which he has so far "shed" upon it, and if the statue of a great man, and a benefactor of his race (an object upon which most persons can dwell with infinite pleasure), should not be quite in accordance with the taste, nor pleasing to the too fastidious eye of the objector, in one of the squares of London, he may console himself by having played a part (however feebly) in "Love's Labor Lost."

By permission of Mr. Baker Brown, I send you two cases from his note book at "The London Home," which have not been published.

The first is one of Prolapsus Uteri:

May 18th, 1858.—Elizabeth Hoskins, æt. 61, married, mother of four living children, and has had four miscarriages at six months. Ceased menstruating at 50, and soon after perceived a large lump protruding through the vulva, which she could easily return herself. She made a small pad which kept it up. On consulting Dr. Turner, of Manchester, he told her it was the neck of the bladder. She used injections of various kinds without benefit. For the last four years the tumor has been increasing, and she suffered most severely from morning sickness, difficulty in passing urine, and latterly she was obliged to return the tumor before she could pass it. Had constant desire both to pass the urine and fœces.

At the present time has a tumor the size of a nine months' fœtal head protruding between the labia, which, upon examination, proved to be the uterus with the bladder. The walls of the vagina are extremely lax and dilatable. Her general health is bad, both from irritation and dragging, and also from the shortness of food of good quality, and increased bodily exertion necessitated by reverses of fortune.

May 20th.—Mr. Brown performed his usual operation; the deep sutures were inserted very deeply. The bent catheter and attached bag were left in the bladder, and 2 grs. of opium given. Port wine 4 ounces in 24 hours.

21st.—Pretty well.

22d.—Some ulceration in tracts; therefore the deep sutures were removed.

The pulse was very weak; in removing the middle deep suture, it broke, so that a part of it was left in. Port wine, 6 ounces, mutton chop, and

℞ Acid. Nit. Dil., gtt. xv.
Decoct. Cinchon. Co., ℥i., every 4 hours.

23d.—Looking still unhealthy. To apply a poultice and solution of chloride of zinc.

24th.—Not yet healthy, good deal of pus and thickening about the parts. ℥vi. Port wine, ℥ij. gin, Oss. of stout, in 24 hours.

25th.—Much better—removed the superficial sutures.

27th.—Healthy. The remaining portion of deep suture came away.

29th.—Firmly united; looks healthy.

30th.—The catheter is to be left off and the bowels to be moved with ol. ricin: and an injection.

June 1st.—The bowels have been well moved, and the parts are very sound and firm.

July 4th.—*Discharged cured.* Able to walk about and assist in the house work. When last heard from, her relief had been most complete.

The second case is ruptured perineum.

Mary Mount, æt. 22, admitted January 22d, 1859, is married, resides at Herne Bay; has always enjoyed good health; was confined with her first child five weeks ago. She says she was three days in labor, and gave birth to a large male child (living).

She was attended by Mr. Godfrey, who when summoned found one arm through the anus, the vertex presenting; of course the perineum gave way, the rent extending to the anus. The anterior part of the sphincter having gone, she has never been able to retain her motions.

January 31st.—Mr. Brown performed the usual operation whilst she was under the influence of chloroform; the parts were well brought into apposition. Opium as usual; wine ʒiv.; beef tea.

February 1st.—No sickness.

2d.—The parts have very little action going on. Wine ℥iij.; mutton chop.

3d.—The deep sutures removed, but the parts had not united, they looked flabby and unhealthy.

28th.—Since the last notice, granulation has gone on till the whole of the perineum, where operated on, has filled up. It now presents a perfect perineum.

Discharged cured. B.

NEW EXPERIMENTS

ON THE TRANSMISSION OF SENSITIVE IMPRESSIONS IN THE SPINAL CORD.

By Dr. E. Brown-Sequard. of Paris. Translated from Brown-Sequard's Journal of Physiology. by A. Peniston, M. D.

The author proposes to establish in the present memoir the following facts relative to the functions of the spinal cord :

1st. That the posterior columns do not transmit any sensitive impressions to the brain, but that the central grey matter is specially charged with this function.

2d. That the organs which conduct sensitive impressions from the extremities and trunk cross each other and decussate in the spinal cord, and not in the brain, as was commonly supposed.

On a three months' old rabbit, the spinal cord was exposed in the whole lumbar region, carefully avoiding, at the same time, wounding the large vessels; the wound is then covered over and the animal allowed to rest during one or two hours. After this period of repose, all the anterior roots of the nerves distributed to the inferior extremities were cut, together with all the lumbar nerves, and the animal is allowed to rest during an hour or two. It was then found that sensation in the inferior extremities was much more acute than in the normal state. It is scarcely necessary to add that all motion, whether reflex, voluntary, or even convulsive, was entirely destroyed in the inferior extremities, so that hyperesthesia was here evidently independent of other sources which could excite spasmodic contractions in a muscle. After having satisfactorily ascertained that the posterior extremities have thus manifestly an increased amount of sensibility, the lateral half of the spinal cord was then cut through, in such a way as to divide the anterior column, together with the antero-lateral and posterior columns of one side, and the corresponding half of the grey substance, the section being made on a level with the first lumbar vertebræ. If the section be made on the right side, it will then be found that the inferior limb on the right side has again increased in sensibility, but the inferior limb on the left side has lost all sensibility, so that neither pinching, nor pricking, nor cutting, nor even cauterization, nor galvanism seem to excite the least sensation of pain in the animal. Sometimes, on pinching either the sciatic or crural nerve on the left side, some manifestation of pain may be found, but when the spinal cord was afterwards examined after maceration in alcohol, it was ascertained that a small portion of the right side of the spinal cord was not completely divided. On the other hand, sensation was evidently exaggerated in the right inferior extremity, and the slightest pressure on any part of the limb caused the animal to manifest symptoms of pain. The various causes of pain, such as pinching, pricking, burning, electricity, etc., act also with much greater intensity than they are usually found to do upon the same species of animal in the normal condition.

Having thus ascertained that sensibility had increased in the posterior limb on the right side, that is to say on the same side in which the half section of the cord was made, and that the left side, on the contrary, had lost all sensibility, the experiment was further continued by cutting the nerves of the brachial and cervical plexuses, so as to prevent any motion, whether reflex or otherwise, in the anterior extremities, from having any share in the production of pain when the right inferior extremity was irritated. After this operation it was ascertained that hyperesthesia still existed in the limb; it had, however, somewhat diminished, though sensibility still existed there more acute than normal, and also over the integument of the thorax.

It is evident from this experiment, that pain could not be attributed to any contraction which might have taken place in any limb, since they were all equally paralyzed, and therefore motionless. This settles beyond dispute the point that the evidences of pain on irritating, for instance, the inferior extremity of the right side, after dividing the half of the spinal cord on the same side, are not caused by reflex movements which may take place in any of the other limbs of the animal. The section of the lateral half of the spinal cord gives a most excellent means of establishing an opinion which we put forth more than ten years ago, viz: that the conducting fibres of the spinal cord, decussate, in the cord itself, and not in the brain, as has been commonly believed since the time of Galen. For other proofs on this subject, see the January, July and October numbers of Brown-Sequard's Journal, 1858. Pathological proofs to the same effect will be found in our book entitled, "Lectures on the Physiol. and Pathology of the Central Nervous System; Philadelphia. 1859."

The experiment above cited throws a great deal of light on other questions relative to the transmission of sensitive impressions, and demonstrates clearly that the posterior columns do not transmit impressions to the brain. For in this experiment the posterior column on the left side was not at all damaged, and yet sensibility was destroyed in the left pelvic extremity; on the contrary, the posterior column of the right side was severed, and yet we see that the right pelvic extremity is more sensitive than in the normal condition. It appears, therefore, that the transmission of impressions does not take place through the posterior columns. Nevertheless, it may be said, that since the fibres which conduct these impressions cross each other in the spinal cord, it is natural that the results which we have given above should be found on experiment, admitting, however, that the posterior columns are made up of fibres which conduct sensitive impressions. But among other arguments against this supposition, is this peremptory one, that the posterior columns do not decussate with each other. It is a well known fact that they do not communicate with each other directly, and if their fibres cross each other at all in the cord, it must be through the grey matter of the cord. So that there can be no doubt that the fibres from the sensitive nerves do not reach the brain along the posterior columns. We have referred so far to sensations of pain, and not to the other kinds of sensitive impressions. It is exceedingly difficult to make a distinction in an animal between the perception of touch and the sensation of tickling, or the impressions which depend upon muscular contractions. Nevertheless, with certain precautions, as for instance, only acting upon the animal when it is perfectly calm, and with its eyes covered so that it cannot see what is done, and can only know it by feeling it, avoiding at the same time to shake the body of the animal, then it will be seen whether any slight contact such as that of a feather, or a feeble application of electricity, produces any sensation or not.

Mr. Schiff has recently expressed the opinion that the grey substance of the spinal cord is the medium by which impressions of pain are transmitted, whereas the posterior columns conduct the sensations of touch. We have long admitted that the various sensitive impressions are distinct from each other, and have shown in a course of lectures delivered at the College of Surgeons, in London, that the destruction of certain parts of the grey substance of the cord causes paralysis only of one of the various kinds of sensibility, whereas the destruction of the posterior columns does not destroy either tactile or any other kind of sensibility. We shall not relate in this place the pathological observations by which we have arrived at these conclusions; we have simply desired to call attention to the phenomena presented by those animals in which reflex phenomena are prevented by cutting the cervical plexus and all the anterior roots which originate from the spinal marrow. It is evident that if tactile impressions were only transmitted to the brain by the posterior columns, those impressions could no longer be transmitted on an animal prepared in the way above described, if the lateral half of the spinal cord be cut above the origin of the nerves distributed to this limb; and that on the contrary the tactile impressions from the other posterior extremity should continue to be transmitted. Now the reverse is precisely the case, and the impressions of touch, tickling, scratching, probably also of heat and cold, together with the impressions of pain, are transmitted from the posterior extremity on the same side on which the half section of the cord was made, but not from the opposite side.

If instead of cutting the lateral half of the spinal cord, the two posterior columns be divided, then it will be found that tactile as well as the other kinds of sensibility, still persist in the limbs below the section. On the contrary, if in the dorsal region, all of the spinal cord be divided, with the exception of the posterior columns, then we find that the posterior limbs lose all tactile and other kinds of sensibility whatsoever.

This opinion of Mr. Schiff's is therefore not better founded on fact than the previous one which he has abandoned, viz: that the posterior columns transmitted sensitive impressions, and that the grey matter was incapable of this function.

We need not add, that these recent experiments are also entirely opposed to the theory which is still advocated by Mr. Longet.

We propose soon to speak of the ideas put forth by Mr. Jacubowitsch, on the structure and functions of various parts of the spinal cord, and we shall demonstrate that this anatomist was mistaken in asserting that the posterior cornua of grey matter are the only means of transmission of sensitive impressions. We propose to show that a section of these cornua, and of the posterior white columns, instead of destroying sensibility in those parts situated below the section, is on the contrary followed by hyperesthesia, and more exaggerated than when the posterior columns alone have been divided.

OBSTETRIC CASES.

By D. Warren Brickell, M. D., Professor of Obstetrics, New Orleans School of Medicine.

The following cases are offered as illustrative of sound principles in obstetric practice, which, although they are freely acknowledged by some, do not find encouragement at the hands of the majority of actual practitioners:

Case I.—*Convulsions at Seventh Month of Pregnancy.*—On the 1st of May I was called to Mrs. R., said to be very ill with convulsions. I took charge of the patient at 5, P. M. She is a creole of the city—is about nineteen years of age—has never been sick a day in her life—is just seven months gone with her first child—has been remarkably well during pregnancy—complained a little yesterday of headache, but was cheerful. About breakfast time this morning, and without any warning, she was seized with violent convulsions. In the hurry of the moment, and there being no regular family physician, a "Thompsonian doctor" was called in. He applied the lancet and bled her about twenty-five ounces (he said), though she appears to have lost more blood than this. The convulsions did not cease, and a midwife (Mrs. W.) was called. She insisted on having a "regular physician;" the Thompsonian was discharged, and I was called in. In the mean time, Mrs. W. had administered a little chloroform to the patient, and with no apparent bad effect. She had also given her some cathartic injections, which had emptied the lower bowels quite freely.

When I took charge of the patient she had had twelve convulsions (said to have been very intense), and they were disposed to recur more frequently; the pulse was about 120, of pretty good volume, but possessed of no force; the skin was of a temperature rather below the natural standard, and the intellect rather dull. I ordered half grain doses of morphine every two hours (*pro re nata*), ten grains of calomel, and the patient to be kept well under the influence of chloroform.

I should not omit to mention that the os uteri was entirely closed (it being difficult to penetrate it with the finger), and auscultation revealed the fact that the child was alive.

At 9, P. M., I returned. My patient had had only one convulsion during my absence, and was sleeping quietly under the influence of the chloroform and morphia. Ordered treatment continued.

May 2d, 9, A. M.—No more convulsions, patient quiet, intellect entirely clear. Complains of her tongue, which has been severely bitten during the convulsions.

5, P. M.—Still doing well—has slept well—bowels well opened by calomel—takes soup.

May 3d, 10, A. M.—Still improving. Says she is well again. No medicines. Advised her to keep her bed.

6½, P. M.—Was called in a hurry to my patient. Found her insensible and in convulsions. Was told that she had been seized with them again at 5½, P. M., and that they had been recurring very rapidly. Has been insensible ever since they came on, and chloroform seemed to have lost all influence over them. I found her pulse very rapid and feeble, head thrown back, intellect gone, surface pale and cool, and very short intervals between the convulsions. Waited about half an hour to observe the course of things. At the end of this time the condition of the patient was evidently worse; the pulse was very frequent and irregular, the temperature reduced, and the convulsions succeeded each other so rapidly that there was hardly any interval. I determined on version and delivery as the only chance to save the woman's life.

The os uteri only admitted a single finger, and was rigid. I annointed my hand thoroughly and carefully introduced it into the vagina, so that I might have a fair opportunity to penetrate and dilate the os. This process of dilatation was the most difficult I have ever undertaken. From beginning to end the lips of the uterus grasped my fingers like a cord, and the patient was in almost one continued convulsion during one hour and a half consumed in the operation. At the end of this hour and a half I had succeeded in bringing the feet into the vagina (the child presented by the head), and at the end of half an hour more the version and delivery (including placenta) were complete. The convulsions continued up to the moment of delivery, but ceased immediately as this was complete, and the patient at once dropped to sleep. The womb contracted thoroughly, and there was very slight loss of blood.

Next morning my patient's intellect was clear; she had no idea of what had been done for her; her pulse was calm, she took no more medicine, and convalesced rapidly.

Remarks.—This case forcibly impresses us with the importance of faithfully observing the maxim in medicine—*Sublatâ causâ, tollitur effectus.* During a practice of twelve years, I have never seen a case of convulsions in the pregnant woman relieved by bleeding; occasionally I have seen them permanently relieved by the administration of chloroform and opiates, but delivery has long appeared to me the only really rational mode of treatment. I acknowledge that I have been, as in the foregoing case, actuated by a strong desire to save both mother and child, and have resorted to every remedy that seemed to promise a reasonable result, but I cannot recommend others to go and do likewise. I have never seen evil result from speedy delivery under such circumstances as I have detailed, and I have seen much harm result from delay of this procedure. I contend that if the woman being treated had not been pregnant, there is no probability that she would have been in convulsions; consequently pregnancy is the cause, and the cause must be removed if we would remove the effect. There are those, I know, who contend that pregnancy is but the *remote* cause, and that we should look for the *proximate* or *exciting cause*, and remove it, thus saving both mother and child. Hence they bleed, purge, etc., etc., to "unload the system," or to free the blood of deleterious principles. To such I would reply—pregnancy produces these very conditions; we know not how they come, nor how they go; if we put an end to pregnancy, we have at least taken the first great step towards relieving our patient; in the majority of instances she is then able to free her own system of that which they seek to bleed or purge from her, or if she seems not, then the way is even clearer for the administration of remedies. To this principle, of couse, there are exceptions, as when it is palpable that convulsions have been excited by constipation, indigestion, or any other patent circumstance which readily declares itself to the observer, and is then readily removed.

I have heard individuals declare that delivery is often impossible, on account of rigidity of the os, and that we are forced to rely on other means than delivery. Indeed, there has occurred a case in this city, within two years, wherein the patient, on the accession of labor, went into convulsions, attended with rigid os uteri; "all ordinary means," as bleeding, purging, chloroform, etc., etc., were used to no effect; the os did not yield, and the convulsions continued, until, after many hours (probably nearly twenty-four), the patient sank, and was buried with her child *in utero.* Now, I contend that artificial dilatation could, in all human probability, have been accomplished if perseveringly attempted; and I also contend that it should have been attempted early; and more, if ordinary insinuation of the fingers could not have been accomplished, then the lips of the uterus should have been cut in sundry places, rather than let the woman die with her child in her. A patient who dies under circumstances such as attended this one, has not received the full benefit of the obstretric art.

Every thinking man will be at once struck with the magical effect of delivery in the case I have detailed. Bleeding had failed; purging had failed; chloroform and morphine had failed; but delivery did not fail. Convulsions continued while the ovum was in the uterus; the ovum was removed, and the convulsions ceased. As for the bleeding, I believe it did palpable harm, as it debilitated the patient, and rendered her less able to resist the exhausting effects of the malady under which she labored.

A very interesting phenomenon in this case was that of her screaming and writhing under the process of dilatation and delivery, and yet, when she awaked next morning, she had not the slightest recollection of having suffered at all. That the body suffered pain I have no doubt whatever, as there were present all the phenomena which characterize suffering, and with which we are all so familiar. Yet the mind was not cognizant of the fact. Those theorizers who contend for the existence of a diffused sensorium, because a decapitated alligator will rid himself of a coal of fire placed on his back, can here, as in other similar cases, find food for reflection.

But I here introduce a case recently reported in the London Medical Times and Gazette by one whose name will be at once recognized by the reader:

PUERPERAL CONVULSIONS.—*By Francis H. Ramsbotham, M. D., Obstetric Physician to the London Hospital, etc.*—On Monday, February 7, 1859, at 5, P. M., I was sent for by Mr. Pryce, of Walworth, to Mrs. G., Beresford street, aged twenty-eight, a stout, plethoric woman, pregnant for the first time, between six and seven months. She had complained for six days before the attack, of drowsiness, confusion of ideas, with slight pain in the head, stertorous breathing, and puffy hands and face. She had never been the subject of hysteric or epileptic fits. In the afternoon of Sunday she experienced a severe attack of vomiting and purging, and at 9, P. M., was seized with a violent convulsion. The fits recurred very frequently—the people about her said every ten minutes—through the night and during Monday. She remained perfectly insensible the whole time, her breathing heavy and stertorous. On my arrival, however, there had been an intermission of nearly an hour free from fits, and she had just swallowed two or three teaspoonfuls of tea for the first time since the beginning of the seizure. Nevertheless, she was still quite unconscious, with widely dilated pupils, acting sluggishly to the stimulus of light. The uterus occasionally became hard, and there seemed to be a disposition for the commencement of premature labor. She had been bled twice during the night, losing about thirty ounces of blood at the two operations; and in the day had been cupped on the back of the neck, and twelve leeches had been applied to her temples. The hair had been cut off, ice was applied to the head, and a turpentine enema had been administered, which had brought away a large quantity of fœtid stools. I had some difficulty in reaching the os uteri with my finger, for it was very high, and inclined more than usually backwards. It was dilated to the sixpence, just admitting the end of the finger, and the membranes were felt tense. Before withdrawing my hand I ruptured the membranes, and gave exit to a considerable discharge of liquor amnii; I then felt a limb, but could not make out which. Her size was greatly diminished. She had no more fits while I stayed in the house. I recommended that as long as she remained unconscious three grains of calomel should be placed on her tongue every two hours, in the hope of its passing into the stomach; and that another turpentine enema should be injected. There were only two more fits after I left; labor pains supervened, and she was delivered at 2, A. M., (Tuesday); the knees presenting. Her consciousness gradually returned soon after delivery; though headache continued. On Saturday, the 12th, Mr. Pryce wrote to me, that he had seen her that morning sitting up, after a refreshing sleep of five hours; that she still complained of her head, and felt relief from the cold application. The Cochia after delivery were very scanty; she took ten grains of calomel, and for two days the spincters performed their duty imperfectly. It is remarkable that she has no recollection whatever of anything that occurred for six days before the attack appeared, although she was following her ordinary occupation all the time; and except for the headache and drowsiness seemed as usual. No albumen could be detected in the urine. She is now convalescent.

Holding the opinion, as I do, that an attack of puerperal convulsions is merely a modification of cerebral apoplexy, I consider that this young woman's life was saved by the prompt and decisive bleeding.

Now, I beg leave to call the attention of the reader to the similarity of the cases detailed by Dr. Ramsbotham and myself, in point of term of pregnancy, of treatment, and of results. But I ask, more especially, attention to the conclusion of Dr. R. in relation to the remedy which relieved the woman. For six days before the convulsions came on in Dr. R.'s case, the patient had complained "of drowsiness, confusion of ideas," etc., etc. My patient complained of headache not long before the accession of convulsions. Dr. R.'s patient had been bled to the extent of thirty ounces, and had been cupped to the back of the neck, and twelve leeches had been applied to the temples. My patient had been bled twenty-five ounces. Yet both patients continued to have convulsions—his patient, it is true, having them less frequently than mine. Both patients were subjected to artificial delivery, Dr. R.'s partially, mine completely; and neither patient had a convulsion after delivery.

To Dr. R.'s conclusion, that the bleeding saved his patient, I will ask—why, if the bleeding was to save her, did he rupture the membranes and thereby induce premature delivery? I care not what a man's theories may be, his practice in a case so important as these prove his proper position. Dr. R. bleeds in cases of puerperal convulsions on theory, and then delivers them because he knows they are not safe without it; I deliver first, for the same reason that he does, and then bleed if an indication arises.

* * *

SPECIAL SELECTIONS.

MEMOIR ON VASCULAR CONTRACTILITY.

By J. Marey, D. M. P., Interne à l'Hopital Cochin, from the Annales des Sciences Naturelles, vol. IX; 4th series, translated by F. J. B. Romer, M. D.

CONTINUED FROM MAY NO.

AGENTS MODIFYING DIRECTLY VASCULAR CONTRACTILITY.

The physical agents which modify tension in different parts of the body, are, from what we have observed, *indirect modifications of the contractility of vessels.* We are also aware, that one of the characters of vascular contractility, consists, in varying under their influence only, after the lapse of some time. A new subject requires investigation, namely: *the action of direct agents of vascular contractility.*

Among the various modifications, we shall mainly occupy ourselves with those whose application to our tissues is most frequent.

1st. Exterior contacts, which we all unite under the name of *traumatism.*

2d. Variations of temperature : heat and cold.

3d. Effects produced by electricity.

We shall endeavor to demonstrate, above all, that the effects due to these causes, apparently so various in appearance, are subject to laws applicable to all. The following are the fundamental laws :

1st. A moderate excitation produces contraction of the vessels.

2d. A powerful excitation causes their dilatation, by a species of paralysis, an exhaustion of innervation (comparable to the fatigue, following muscular exercise).

3d. When an excitant is often applied to a part, the vessels of this part are with more difficulty excited, owing to a kind of *habit* (*a*), (comparable to the greater resistance to fatigue of a muscle much exercised).

INFLUENCE OF TRAUMATISM ON THE CONTRACTILITY OF VESSELS.

We give here an experimental fact, which we believe ourself to have been first to notice, and which appears appropriate to show the effects due to the influences of traumatism on vascular contractility.

First Experiment.—If a blunt body be passed over a part of the integuments, the back of the hand for instance, and a line traced, the blood is mechanically expelled therefrom, a pale exsanguinous line results, which in a second will have disappeared ; the blood having returned on the removal of the obstacle, the skin has resumed its normal tint. If the same place be observed twenty or thirty minutes afterwards, it is seen that the white line has reappeared, is more persisting, lasting occasionally over a minute. (1)

Is it not rational to admit, in explanation of this *white streak*, a contraction of the vessels reacting against the produced excitation, and driving the blood from their cavity, leaving the impressed part exsanguineous? This explanation is so much more reasonable as it is the plainest, and possesses already its analogies in physiology; indeed, it resembles the phenomenon presented by a divided artery. In both cases, we observe a retardation of contraction on the impression, and a prolonged contraction after the impression has ceased.

Second Experiment.—Let us repeat the former experiment and observe the phenomena which are evolved when we trace our line with increased force, or with a more acute instrument, the edge of the nail for instance, so as to produce on the skin a lively impression, and even a little pain. In this case the phenomenon observed is somewhat different from the former; a *red line* appears over the tract of the instrument, limited to the parts directly touched, and having the width of the bruising instrument. Coetaneously with the appearance of this red line, there appears also a *white edging* on each side of it, identical to the white line described in the first experiment.

What are we to conclude from the second fact, unless it be that the parts which are comprised within the white edging, were beyond the maximum action of the instrument, and have hence received but a sufficient quantum of excitation to enable them to react against it, while in the other parts, more contused, the contractility of vessels was destroyed by an action exerted either on the tissue itself, or on the nervous system, corresponding to the impressed part. In both hypothesis, the redness is due to a loss of contractility in the vessels. These two experiments prove already the justness of the two first propositions, which we have pointed out, when speaking of the effects of an excitation, according as it is *weak* or *powerful.*

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(1) This phenomenon is quite evident; we have produced it, not alone on ourselves, but on great number of subjects; it is principally remarked on those whose skin is naturally colored, and after some trials, so as to produce on the skin an impression neither too strong nor too feeble, every one may induce it.

Of Habit. Vascular contractility offers a resemblance to that of voluntary muscles; because the very performance of contraction exhausts it after some time, precisely as the exercise of a muscle brings on its fatigue and its temporary weakness. Analogy leads us to inquire, whether the continued exercise of this force does not increase it in time, even as the exercise of muscles increases muscular power and the resistance to fatigue. Now, we may observe, that repeated traumatic influences do in fact render the part subjected to them less susceptible to exhaust its vascular contractility. For proof, we give the following:

Experiment.—A traumatic excitation applied on a portion of the integuments, generally protected against contacts somewhat painful (the epigastrium), and the same excitation applied the very reverse in its conditions (the hand for instance), produces a red line on the first portion, but a pale line only on the hand; that is to say, it exhausts contractility in the first, while it excites it only in the second.

We might accumulate proofs ad infinitum in support of this fact; that *habit* to traumatic excitations renders vascular contractility of a region less prone to exhaustion, but we shall mention a few only.

The hands of the artizan bear with impunity the rough contact and the species of bruising (massage) resulting from the handling of certain tools; a literary man trying to work with the same, finds his hand to become red, hot and swelled, not having acquired by habit a sufficient amount of contractile force.

The foot becomes equally accustomed to prolonged marches, to tight shoes; the rider gets accustomed to the rough contact of the saddle, which is so painful at first.

Let it not be said, for the purpose of explaining these facts, that a thicker epidermis is formed; this can only protect the corpus mucosum, but is of no avail to the deeper seated tissues, as a protection against the kind of bruising of which we have spoken, and which induces a congestion therein, whenever they have not acquired by habit the necessary force of vascular innervation. (1)

B. INFLUENCE OF TEMPERATURE ON CONTRACTILITY OF VESSELS.

The variations of temperature, to which we are daily exposed, produce also very important variations in the circulation by exciting vascular contractility into action; but the subject is here of a more complex nature than in the preceding case. The same agent, caloric, produces on us very different impressions, according as it is added or subtracted from our tissues; the circulation, modified by these influences, induces, in its turn, changes of our proper temperature depending on the circulatory activity. (2)

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(1) Let us observe, that there exists an identity of nature between the *habii* of which we speak here and the adaptation of contractility to the interior tension.

(2) The temperature of parts, which may possess different degrees of heat, like the extremities and the cutaneous surface, increases with the quantity of blood *circulating* in their interior. We shall demonstrate this fact in anothe article.

1st. *Effects of Cold.*—If heat and cold are to the physiciste only variations in quantity of caloric, for the physiologist they constitute two very distinct causes of impressions.

Moderate cold excites vascular contractility; of a more rigorous degree, it paralyzes it.

The experiment is easily made.

Experiment.—If the hand be dipped into water of such a temperature as will give the sensation of moderate cold, we see by the paleness and diminution of volume, soon perceptible in this organ, that the circulation is less free, and that the vessels must have contracted. This effect corresponds with that which we obtained by traumatic agents lightly applied. When the cold is intenser or prolonged, the effect is the reverse, the contraction of the vessels is followed by their dilatation, producing redness and swelling of the hand. Here again we observe identity of nature with the effects of severe traumatism. The interpretation of this phenomenon may hence be rendered thus: *Atonic dilatation of the vessels, and passive production of the whole series of consequences resulting therefrom.*

This conclusion is most legitimate, when we investigate methodically the production of the effects to which we allude but appears paradoxical when examined superficially. Without doubt, the first observer, who on handling snow, saw his hands in a short time become hot, red and swelled, must have been astonished at the evolution of heat under the influence of cold; it must have appeared to him as a salutary effort of nature, tending to protect us against the baneful effects due to freezing, and he was naturally led to consider this indirect effect as a reaction of the organism. Hence the word reaction, and the belief of a local *activity* which it implies, have been transferred to all cases, whether pathological or physiological, where the circulation is increased. This manner of reasoning has led to the creation of a *force* in the tissues which ought to produce circulatory activity precisely where a logical deduction of facts forces us now to recognize that there is weakness (faiblesse).

Habit.—The degree of cold necessary to produce the effects we have mentioned, is not always the same. A perfect similitude exists in this case with what we have seen resulting from the effects of traumatism. We recognize in both the effects of habit, so that the same degree of cold, acting on us for a length of time, ceases to impress us with the same force it did in the beginning.

We are all cognizant of the beautiful experiments of Edwards on animal heat, by which he demonstrated that an animal can, in winter, resist a reduction of temperature, which it could not have endured in summer. We, who believe ourselves justified, not to separate animal life from circulatory activity, and to explain this last by the greater or lesser dilatation of the vessels, see in the unequal resistance to cold or heat but the manifestation of an unequal resistance of the vessels to the influences of temperature, as the agents of dilatation or contraction.

Similar facts are apparent on ourselves. When in consequence of change of season, the mean temperature has shifted gradually from +20° to —4° (+67° to 25° F.), the same low temperature which in summer would appear to us insupportable, is easily borne in winter, even with light clothing. Reciprocally, we feel cold in summer (1), when, in the midst of warm days, the temperature is suddenly reduced, though still remaining some degrees above the thermometric point called temperate. It is because the most extreme variations of temperature cease to be appreciable modificators of vascular contraction, when the system has been allowed time to accommodate itself gradually to their influence.

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(1) In this case there exists not alone the sensation of heat and of cold, but we observe also the corresponding effects from the vessels; palor or congestion.

This *habit* is effected *partially* for a region alone exposed to a certain temperature; thus the hands and the face, better accustomed to the influences of cold, may be exposed to them with greater impunity.

A striking instance, illustrating the effects of habit, may be verified in a cold bath during summer. Among bathers, there are some specially prone to experience what is known as the *warmth of reaction*, or what we call exhaustion of vascular contractility. On such persons we observe the curious fact, that while the body has sensibly reddened after one or two immersions, the hands and face, also immersed, are pale, this last being the least of the effects of cold on contractility. This peculiarity is owing to the fact that the hands and face, oftener exposed to variations of temperature, than the clothed portions, have acquired by *habit* a more vigorous innervation, and because the same cause which exhausts vascular contractility in the body, only stimulates it in these parts.

Facts might be multiplied, and professional *habits* to cold might be exhibited, establishing the law which we observed in traumatism. Hence common facts, seen daily, rise to scientific importance, if interpreted so as to shed light on the physiology of vascular contractility.

2d. *Effects of Heat on Vascular Contractility.*—The action of heat, alike, in this particular, to certain chemical agents, appears to induce an immediate (d'emblée) dilatation of the vessels, absolutely as if it were but an excess of the caloric, to which is owing the normal contraction of our vessels. Whatsoever the mode of action of heat, it does not escape the effects of *habit*, according to the laws which we have pointed out for traumatism and cold.

In summer we are better qualified than in winter to bear a high temperature. We discover for heat a local or general adaptation of innervation, as we have observed for other agents, to the temperature we habitually undergo. Certain professions present a striking proof of this.

Hatters, who are obliged to keep their arms for a long while immersed in hot water, get accustomed to this temperature. Bakers, glass-blowers, cooks, bear the radiation from large fires without experiencing the effects of any great congestion. In the whole of these cases, the tissues exposed to heat have acquired a very considerable force of vascular innervation. Hence we observe that whenever caloric acts not on these tissues, the contraction of vessels is too powerful and the circulation diminishes. The complexion of men following these trades is pale when not exposed to heat.

That which occurs in such cases has been noticed and skillfully applied to therapeutics by M. Trousseau, who advises in some peculiar discolorations of the face, so difficult of management, the application of very hot embrocations on the too highly colored spots, with the design of obtaining the palor which is consecutively produced on removing this agent. A similar idea guides him in his method of treating mucous hemorrhages; he discards cold lotions, which answer as temporary paliations only, frequently followed by renewed hemorrhage, and he advises, instead, water made as hot as can be borne. This means, which in the onset exasperates the disease, is followed by a salutary reaction of the vessels, which contract and cease to pour out blood.

C. INFLUENCE OF ELECTRICITY ON CONTRACTILITY OF VESSELS.

The effects of *electricity* are less frequently observed than those of the ordinary causes we have mentioned; but having often had the opportunity to verify them on hospital patients, who were Faradized (*galvanized*) for various affections, we shall relate the facts as we observed them.

The primary effect of electricity applied moderately by means of metallic balls (houppes métalliques), is a contraction of the vessels of the skin. At the excited part, the tissues turn pale, while the hair-bulbs produce the prominences known as goose-bumps (thair-de-poule). The effect of a more powerful current, or the prolonged application of a moderate one, is to exhaust vascular contractility. The integuments, under these circumstances, redden and become hot; it is hence seen, that in these cases the phenomena are exactly like those we noticed above, as succeeding the other excitants. To patients who complained at night of cold in their limbs, we have been able, by electrising one side of the body, to procure the sensation of warmth in that side, while the other felt to them still cold.

We cannot aver this sensation to have been purely subjective, or that there was really a rise of temperature verifiable by a thermometer. We still lack experiments on these points, and we are not as yet informed whether electricity comes under the law of habit, which, inductively, is at least probable.

INFLUENCE OF CHEMICAL AGENTS.

To our investigations on direct modificators of vascular contractility, we ought to add those which have been made with chemical agents. To Thomson, Wharton Jones, etc., are due important observations on this subject; but the manner of applying these substances appears to us liable, unfortunately, to alter the results. The indispensable denudation of the tissues in the greater number of their experiments, the complexity of action of many substances employed, prevent us from obtaining unmixed results. Nevertheless, one important fact may be gathered from the researches made on this subject, namely: that in the majority of cases, the primary effect on the vessels on the application of these agents, is their contraction; the second effect is dilatation, which takes place only after a contact too long prolonged, or from the application of any concentrated solutions. Are the cases of an immediate dilatation (dilatasion d'emblée) due to the action of a too energetic substance, or else do they belong to another category? We are not yet prepared to answer this question.

Finally, there are cases when contraction of the arteries varies under other influences, arising from a distance, by reflex action, and others again depending directly on the nervous centres. An immediate interruption of vascular innervation appears in such case to take place, for dilatation seems to be the only effect produced. But the class of phenomena observed in secretions, and the blush following an emation are obscurer still, and even less investigated than the preceding.

APPLICATION OF THE OBSERVATIONS ON THE CONTRACTILITY OF VESSELS TO THE PATHOLOGY OF FEVERS AND TO INFLAMMATION.

If the object of the preceding experimental researches has been understood, it is seen that our design is to apply these physiological remarks to the elucidation of congestions and inflammations.

We separate intentionally *congestion* from inflammation, following in this particular Haltenbrunner, who admits, in *true inflammation,* phenomena of a different order from those of a simple hyperemia; with him, we consider, however, congestion to be the beginning of inflammation, a first period, we might say, but a period to which the disease might be confined (bornée). Hence, while acknowledging that our researches do not provide us with pathological indications, wherewith to combat confirmed inflammation, yet, we do not the less attach much importance to the action of congestion, since, if we could at will control the period of congestion, we should prevent, most certainly, all the sessions of the tissues occurring in the second, against which our researches have not as yet supplied us with any therapeutic means. (a)

It follows, from all we have said on the contractility of vessels, that:

1st. When the vessels contract too much, the tissues become pale, they shrink, grow cool, and their circulation is slackened.

2d. When the vessels do not contract enough, they allow themselves to be dilated by the action of the heart; the tissues redden, swell, and their circulation is accelerated. Now, this last phenomenon is nothing else but congestion, (1) the same preceding inflammation, and the nature of which we wish to demonstrate as being *atonic* or *passive*, while the state of real activity consists in the contraction of vessels, causing palor, cold, and in general algidity. In proclaiming the fact that *congestion is always passive*, we think it necessary to refute the more specious objections which have as yet been raised against the opinion we maintain.

(a) The power of controlling congestion we possess, since the introduction into practice of the "veratram viride."—[Note by the translator.

Without entering into a complete historical disquisition of the opinions on inflammation, it is still advisable to follow the successsion of theories on its intimate nature, and the part which the smaller vessels play in its production. Dezeimeris (2) gives us an insight into this curious evolution, and it is amazing to behold the immense influence which ancient authority exercised on those who followed them.

OF THE PRINCIPAL THEORIES PROMULGATED ON THE NATURE OF INFLAMMATION.

The earlier theories promulgated on inflammation are long anterior to the discovery of the circulation. We need, hence, not be astonished, if at an epoch, when the force of the heart, by which the blood is thrown into the vessels it distends, was unknown, it should not have occurred, that inflammatory congestion depended on a cause so remote from the inflamed point.

The cause of congestion was therefore sought in a force residing within the tissue; and Van-Helmont, who, although a contemporary of Harvey, wrote at an epoch, when his doctrine was but little known, admitted tonic motions of the capillaries in order to propel the blood. Stahl followed the same opinion, and Boerhaave, revising their theory, ascribed inflammation to an increase of the vital motion which forces the blood into the lymphatics. This was to bestow an active cause on congestion, yet his opinion was still received for a long time, since we see it was shared by Haller, Cullen, Vieg d'Azyr, etc.

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(1) It is important to distinguish the congestion produced by the dilatation of the vessels (atonic congestion) from that, taking place on account of an obstacle to the return of venous blood; the first is accompanied by heat, the second by cold; the first presents a lively red (*rouguer rutilante*) color, the second a blue tint. We speak here only of the first kind.

(2) Arch. Gén. de Med., 1829, t. xx, p. 168.

In the meanwhile the microscope had intervened, and proved the dilatation of capillaries in congestion. This dilatation, and the swelling of the diseased part, ill agreed with the theory of tonic motions, and they were reluctantly forced to admit vascular dilatation, and to seek a cause for its occurrence. Hunter, Bichat, Thomasini, John Burns, admit this dilatation, but ascribe it to a local activity. According to these authors, the blood is summoned (*appelé*), but is not received passively. Such then is the second theory of *inflammatory activity*, which has met with adversaries only in very recent times and which still sways science, at least with us (a). (Farther on we shall give the reasons on which this doctrine is based, and we will then investigate their worth.)

A further step against the opinion of inflammatory activity was soon taken; Winter, Schumlansky, and Callisen admitted the active dilatation of Hunter, adding that it is followed by a relaxation which made the vessels yield to the afflux of blood. (Dezeimeris calls this the mixed opinion.)

Vacea expresses the idea of passiveness better: he thinks that inflammation always *produces* an absolute or relative debility. (Let us, however, remark, that this opinion is quite distinct from the idea that inflammation arises from debility.)

Now succeed the experimentors.

Wilson Phillip states the capillaries to be dilated, and ascribes this condition to their weakness (*faiblesse*). A first concession to the doctrine of passiveness; but he notices also an exaggerated beating of the afferent arteries, and perceives in this fact an additional activity on their part (as if arteries possessed of themselves a diastolic expansive force, producing the phenomenon of the pulse). He considers this excess of force in arteries, as destined to compensate for the weakness of the capillaries, and he concludes, that this weakness and the dilatation thence resulting create an obstacle to the flow of the blood. In short, it is seen that this theory rests entirely on the opinion which supposes a straining of the vessels to be necessary to insure the forward motion (progression) of the blood in their interior, the old theory still imposing its errors, even on those who seek to inform themselves directly by the observation of facts.

Thomson tried numerous agents for the purpose of studying their action on the contractility of vessels: some, he perceived, increased, while others diminished it; but since the observation has been made, that any kind of agent contracted the vessels when applied moderately, while a larger dose paralyzes them, we have reason to mistrust the specification of various substances, as the manner of applying them must in itself possess a perturbating influence on the results produced. Thomson further admits, that in cases of dilatation of the vessels, the flow of the blood is retarded, while it is accelerated in cases of contraction. He adds that a very simple hydraulic law elucidates this fact. (We have already adverted in this memoir, pages 8 and 9, how this hydraulic law is to be explained, to avoid the inference of erroneous conclusions in Physiology and Pathology.)

Hastings drew from his experiments the following conclusions:

A. That at the beginning of an excitation, there occurred a constriction of the small vessels, causing a more rapid flow of the blood within them. (We have seen above how this appearance of an acceleration which coincides with a real slackening as to the quantity of blood which passes, is to be understood.)

B. That under the influence of a prolonged excitation, contractility is exhausted, the vessels are dilated and the flow of the blood is slackened. (In this instance the idea of passiveness is well described; as to the slackening of the blood in cases of dilatation of the vessels, the criticism made above, we think equally applicable here; in fact, the author adds himself, that on the foot of a frog, the dilatation produced by heat was accompanied by an acceleration in the flow of the blood.)

C. That if the stimulus be very irritating, debility is frequently the first phenomenon evolved.

D. That in cases when vessels have been dilated, a different stimulus will often restore to them their contractility. (The succeeding remarks of Hastings have not the same importance to our subject.)

Paget (1) gives the result of experiments made by him on the wings of bats; he observed: 1st. That the vessels rubbed over with a needle contract under this influence and subsequently dilated (he does not determine the question, whether this dilatation be active or passive); afterwards they remain refractory to renewed traumatic excitations.

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(1) London Medical Gazette, 1850, t. xlvi, p. 965.

2d. Vessels thus dilated, can be made to contract again, on the application of another agent.

3d. The contraction of vessels is always attended by a slackening of the flow of the blood; while, on the contrary, it becomes swifter during dilatation.

4th. Under the influence of other local exciting agents (tincture of capsicum) an apparently primary dilatation ensues; this dilatation is irradiated to the whole of an intermetacarpian space, and sometimes is extended to the neighboring spaces.

5th. The author considers this state of vascular dilatation as intermediary between health and disease (inflammation), the arrest of the circulation being the transition. In the cauterization with a hot needle, a contraction of the vessels first occurs, followed by this dilatation; the most injured part is subsequently the focus of a *status, without the blood being coagulated.*

The opinions on inflammation, contained in these last lines, are about those met with in Haltenbrünner, leaving out the coagulation, which the last admits, in order to explain the status.

As the investigations of Paget, published in 1850, are considered by most of those who have investigated this subject since that period, as being (*le dernier mot de la science*) the latest scientific exposition on the initial symptoms of inflammation, we refrain from further statements on the doctrines of this affection. We will briefly resume the old discussion on the *activity* and the *passiveness* of inflammation, and we shall see whether the practice of activity, formerly triumphant, and still classical, can be maintained in the presence of modern Physiological experiments.

Palmer in his notes on J. Hunter, (1) points out the motives in which this author relied for infering an *inflammatory* activity. Hunter considered inflammation as *an exaggeration of the natural forces,* and an acceleration of the circulation. Let us remark, that the word *force,* used by Hunter, is one of those creations of the mind, common to Physiology whenever it rests satisfied with empty words, not daring to confess the inability of present information in explaining a fact. Besides that it cannot be defined, this word explains nothing. Where does it abide, if we localize it in the inflamed part? If localized in the vessels, it will be a form of dilatation. This form cannot only not be understood, and is without its analogue in the system, but it is useless, and when a diminution of contraction meets every requirement, why invent something else?

If the Hunterian force resides in the blood, it can only be the cardial impulsion, it ceases then to be local, and the inflamed tissue can possess within itself only *weakness* and *passiveness*. It must appear strange that the doctrine of inflammatory activity should have been advocated by the great English Surgeon, he who proved, in opposition to the then received opinions, that inflammation was not a repairing process, but simply a symptom (accident) in the cicatrization of wounds. The union by first intention is, according to J. Hunter, a peculiar process, which inflammation only impedes.

If we analyze, seriatim, the propositions on which J. Hunter relies, and on which his theory of *active inflamma-*

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(1). J. Hunter, Traité du Sang et de l'Inflammation.

tion is based (1), we soon perceive that they cannot sustain an earnest inquiry.

In his first arguments, the author tells us in several ways, that the increase of the quantity of blood circulating within a part, can only be owing to an activity of that part. (We have given our reasons why and wherefore we believe it impossible for a local activity to invite more blood into the tissues.)

Further on, Hunter gives the following reason: Inflammation is produced by *excitants* which activate the circulation; it is cured by *debilitants*. This is manifestedly a fallacious reasoning; for with us, the excitants of Hunter, become debilitants, and reciprocally, his debilitants are but excitants of vascular contractility.

The author afterwards forsakes his own opinions on inflammation; he terms it a *repairing process*. He closes by the following argument, which, it is to be regretted, should be found in his book, this being a masterpiece: "The functions of the inflamed part being sometime suppressed, prove that all the activity is concentrated towards the repairing process." We hope the opinion of the transfer of an imaginary force, from a physiological to a pathological state, need not be contended against now, and that the most zealous advocates of *activity* would decline this argument.

THEORY OF THE PASSIVENESS OF CONGESTIONS (2). APPLICATIONS TO PHYSIOLOGY AND PATHOLOGY.

If it be acknowledged that the old doctrine is unacceptable now, we must endeavor to substitute another in its place, based on facts derived from experience and as plain and satisfactory as possible.

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(1) Notes of Palmer, Loc. Cit.

(2) It is understood that we mean only the congestion with increase of the circulation and of heat.

To begin, congestions being but modifications of preëxisting forces of the circulatory state, we must be able to explain them by modifications of preëxisting forces of the circulatory system.

Contractility is in itself sufficient to supply the place of the various forces formerly admitted; *thus, when it acts in the heart,* it produces sanguine tension, the cause of the dilatation of vessels, and *when it is exerted in the vessels,* it contests with tension itself and moderates its effects. The increase or decrease of contractility in either of these two seats, is sufficient to explain any possible circulatory state.

The suppression of these useless vital forms is not alone simplifying study, it is an advance towards truth, in consequence of this great principle of scientific logic, that *creations of the mind must not be multiplied without reason.*

Let us see how pathological phenomena are produced by this single force. Before proceeding, we repeat that any *generalized* abnormal circulatory state of the whole system may, if we consider it as a rupture of equilibrium between the contraction of the heart and that of the vessels, depend on the heart or on a general disturbance of vascular innervation. But when the circulatory disturbance is *localized,* it must oftener be owing (1) to a change of local innervation, in other words, in the dilated or constricted vessels.

We shall take up here only the disturbances of contraction proper to vessels. These disturbances are not always limited to their seat, for contractility may change in all the vessels of the body.

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(1) We have indicated, pp. 16 and 17, the local perturbations of the circulation depending on the heart.

The *general atony* of vessels constitutes fever (1), *general contraction* produces cold and palor, in fine, *algidity*.

PROOFS OF THE PASSIVENESS OF MORBID CONJESTIONS.

A. Proofs derived from the order of succession of algidity and heat in diseases.

Whenever these two species of phenomena succeed each other in a disease, they are *developed in the order* which we have observed in the above physiological experiments, namely: first, vascular contraction, then dilatation, precisely as if vascular dilatation were produced by exhaustion of contractility, because this last has been over-exerted.

Examples—1st. In *cholera* the first period is algid, the next is febrile with heat. (It is this second period which is known as the *period of reäction*, and which is produced in our opinion by the exhaustion of vascular contractility.)

2d. In syncopy, the first period is algid, followed by a febrile state, in virtue of the same law.

3d. In *local inflammations*, Hastings affirms to have observed cold and palor of the parts as the first symptom, the period of local heat being subsequent.

4th. In *intermittant fevers*, of which the first cold stage is accounted as only a subjective sensation, it ought to be observed that it always precedes the hot stage.

This order of succession is an unchangeable law of pathology; moreover, it is easily understood by the theory we advocate. The reverse is as impossible, as if we could suppose weariness occasionally to precede muscular exercise.

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(1) We shall demonstrate elsewhere, that in fever, the dilatation of vessels is the principal phenomenon, the frequency of the pulse being only secondary.

B. Proofs of Passiveness in cases where the dilatation of vessels is primary.

Cases do occur, where a febrile state, with heat, is developed as the primary symptom; according to our theory, in such cases, debility of vascular innervation must exist to bring on fever. Many circumstances can produce this debility and, in consequence of its existence, the febrile state; thus fatigues, from whatever cause, prolonged muscular efforts, vigils, powerful emotions, violent pain, in fact every circumstance denoting a loss of what has been termed nervous inflex, is succeeded by a diminution of vascular contractility, that is to say by fever accompanied with heat. As a proof that in fevers there exists a debility of innervation, we need simply pass a finger nail over the integuments in order to produce the phenomena of contractility, described page 19, as the effects of traumatism, and *we obtain at once a red line*, to which M. Trousseau has drawn attention in meningitis. This red line, which the learned Professor has named *cerebral stain* (tache cèrébrale), must not be exclusively attributed to meningitis; it ought to be referred to a general febrile state, and particularly in children. We have sufficiently explained above how this phenomenon establishes an excellent proof of the debility of vessels.

C. Proofs of Passiveness derived from the nature of the causes of inflammation.

In our physiological experiments we have seen the excess of an excitant to produce congestion, and no difference existed between it and the congestion at the beginning of an inflammation, save what was owing to the degree of intensity of the cause.

If the excitation produced by traumatism, cold, etc., had induced a more complete exhaustion of the vessels, instead of a transient congestion, one more lasting would have resulted, or even inflammation have been produced. Finally, cases do occur, when *congestion takes place in the same manner as a reflex motion,* often under the influence of a remote excitation. Thus a spontaneously developed neuralgia is frequently attended by a congestion at the seat of pain. The circulation is more active in a gland about to secrete, under the influence solely of physiological excitations the seat of which is more or less remote.

Is it necessary, in order to explain these facts, to invent a force of dilatation which acted in a reflex manner, precisely as vascular contractility does under the influence of excitants? It is quite as natural to conceive the centripital excitation to exhaust in the centres the force of vascular contractility, and this gives quite as reasonable an explanation of the facts I have mentioned.

ON THE ADVANTAGES OF THE DOCTRINE ON THE PASSIVENESS OF INFLAMMATIONS.

The preceding discussion is not a vain dispute about words; the doctrine of *passiveness* leads us to consider the phenomena of inflammation in a light altogether new; it furnishes the key with which we can unravel many facts inexplicable on the theory of activity.

If we admit that atony of the vascular system deprives it of the only *vital* force by which it could regulate the quantity of blood which passes through it, and oppose itself to a great distension, the effect of sanguine tension, we must conclude that, contractility once destroyed, the physical influences rule supreme over the flow of the blood; then will the dilated vessels, by reason of their interior tension, yield still more, when tension is increased by the influences of gravity, or when it ceases to be counterpoised by exterior pressure. For these reasons, what more natural or more mechanical than the directory action which declivity exerts on inflammation? We conceive the analogous effect due to a greater or lesser laxity of tissues, etc., circumstances but imperfectly explained by the strange (lutte) struggle admitted to exist between the inflammatory *force* and the physical *forces*.

Penetrating still further in the investigation of the phenomena observed in inflammation, we perceive that physiology was much embarrassed to explain another fact constantly observed in the evolution of phlegmons, namely: *their tendency to point* (burrier) *exteriorly*, by forcing their way through the deep seated tissues. In this case, as well as in many others, physiology invented an imaginary force, analogous it was alleged to that which compelled the *plumula* of plants to strike perpendicularly into the ground. This is acknowledging the insufficiency of inflammatory activity to explain the phenomenon. On the theory of passiveness, nothing so simple, on the contrary, than the interpretation of this fact. The only force remaining in an inflamed part is that by which the blood is propelled and distends the vessels, whenever no physical resistance opposes its afflux. When contractility is inadequate to compete against tension, other influences still remain to counterbalance it; among these, the pressure exerted by surrounding tissues—and this pressure goes on increasing from the periphery to the centre of organs. In a limb, for instance, the subcutaneous parts are only compressed by the elasticity of the skin; deeper, the tissues are subjected to the pressure of the aponeurotic layers; still deeper yet, to these two causes of pressure is added that exerted by the muscles; so that when a phlegmonous focus occupies the interior of a limb, the part where exterior pressure is least, where consequently sanguine tension may more easily dilate the vessels, will precisely be the part nearest to the surface.

The same cause explains also why strange bodies, balls, for instance, making their way through our tissues, produce inflammation only when near the exterior surface, that is to say, where sanguine tension ceases to be counterpoised by the numerous superposed layers.

The inflammatory (étranglement) strangulation finds here also a ready explanation by the theory we propose.

The seat of the greatest obstacle to the flow of the blood being in the capillaries, as we demonstrated it, (1) it follows that the blood in the arteries acquires a far greater tension than venous blood; therefore, when the contractile force of the inflamed vessels has disappeared, the arteries will be dilated with a very considerable force of expansion, relatively to the veins; then, if the inflamed parts be confined to a limited space by resisting planes, (plans) any further increase of calibre (amplification) cannot take place without compression of the veins, which will in such a case cease to be permeable. The arterial blood has, therefore, closed the way for its own return, and mortification soon succeeds.

This theory does even explain the tendency of congestions to subside by resolutions, for we admitted the *habit* to excitations as a character of vascular contractility, from which property results an increase of innervation of the vessels after a variable time, and these last cease to be dilated under the same influence, which at the beginning was too powerful for them.

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(1) See former memoir on the influence of arterial elasticity.

We shall here conclude the practical conclusions of our memoir; in future articles we will resume every one of the points it contains, in order farther to explain, and also to remove doubts which the facts detailed above might still leave.

As to the nature of the secondary effects of inflammation, we shall not discuss it now, its investigation requires researches quite different, in which we hope to engage hereafter, following as much as possible an experimental path.

EDITORIAL AND MISCELLANEOUS.

AMERICAN MEDICAL ASSOCIATION.

We regret that we cannot furnish our readers with a more detailed account of the late proceedings of the Association at Louisville. When we procure more complete data we will send them forth. In the mean time, we extract from the American Medical Gazette as follows:

"Annual Meeting of the American Medical Association at Louisville, Kentucky, May, 1859.—The Convention of the *Medical Professors* of the country, called by the American Medical Association to meet at Louisville, Ky., one day in advance of their own annual meeting, met and adjourned on May 2d, having done nothing, for reasons which will be obvious when we name the colleges *not represented at all!* which are the following, viz :

" Universities of New York, Pennsylvania, Maryland, Virginia, Louisiana, Buffalo, Nashville, Jefferson Medical College, Yale College, etc., etc., neither of whom have sent here even a single delegate.

" Still, however, delegates appeared from twenty of the schools, chiefly of the South and West, viz : Charleston, S. C.; Augusta, Ogelthorpe, and Atlanta, Geo.; St. Louis and Missouri ; Kentucky and Louisville ; Shelby and Memphis, of Tenn.; Michigan University ; Cincinnati, O., and Cleveland, O.; Lind and Rush, of Illinois; University of Iowa ; Richmond, Va.; Harvard, of Boston, and Dartmouth, of N. H. Prof. Crosby, of N. H., presided, and Prof. Blackman, of Ohio, acted as Secretary. The absence of representation from so many of the older and larger schools prevented any definite action, and hence an adjournment until next year, after providing for a committee of five professors to confer with the Association through a similar committee to be asked for, and report at the next annual meeting.

" This morning, May 3d, the American Medical Association met at Mozart Hall. The President, Dr. H. Lindsley, of Washington, D. C., took the chair, with Drs. Sutton, Crosby, and Edwards, Vice Presidents ; Drs. Semmes and Bemis, Secretaries, and Dr. Wistar, Treasurer, in their places. The usual proceedings were had, inaugural address delivered, etc., when Dr. Reese, of New York, chairman of the Committee on Nominations, reported the following officers for the year, viz :

" *President.*—Dr. Henry Miller, of Louisville.

"*Vice Presidents.*—Dr. Tripler, U. S. A , Dr. Askew, of Del., Dr. L. A. Smith, of N. J., Dr. C. West, of Indiana.

"*Secretaries.*—Dr. Bemis, of Ky., and Dr. E. Ives, of New Haven, Ct.

"*Treasurer.*—Dr. Caspar Wistar, of Philadelphia.

"All of whom were elected by acclamation.

"The reading of papers was in order, discussions, etc., which occupied the time until Wednesday inclusive. The special and standing committees were appointed, and the time and place of the next annual meeting fixed at New Haven, Ct., on the first Tuesday in June, 1860, the constitution being altered to allow this change of time.

"The following names constitute the Standing and Special Committees, as reported from the Nominating Committee, consisting of one delegate from each State represented, and of which Dr. D. Meredith Reese, of New York, was elected Chairman, and Dr. W. Brodie, of Michigan, Secretary, viz :

"New Haven, Ct., was selected as the place for the next annual meeting, and the time fixed for the first Tuesday in June, 1860. Dr. Eli Ives was appointed Secretary, to be associated with Dr. Bemis, who holds over.

"*Committee of Arrangements.*—Drs. Charles Hooker, Chairman, Stephen G. Hubbard and Benjamin Silliman, Jr., with power to add to their numbers.

"*Committee on Prize Essays.*—Drs. Worthington Hooker, Chairman, Jonathan Knight and P. A. Jewett, of Connecticut; Dr. C. C. Shattuck, of Mass.; and Dr. Usher Parsons, of R. I.

"*Committee on Publication.*—Dr. F. G. Smith, Chairman, Dr. C. Wistar, Dr. Hollingsworth and Dr. Hartshorne, of Philadelphia; Dr. Askew, of Delaware; Dr. Bemis, of Ky.; and Dr. Ives, of Conn.

" *Committee on Medical Literature.*—Dr. Henry Campbell, of Georgia, Chairman; Dr. D. F. Wright, of Tenn.; Dr. O. W. Holmes, of Boston; Dr. S. G. Armor, of Ohio; and Dr. W. H. Byford, of Ill.

" *Committee on Medical Education.*—Dr. D. Meredith Reese, of New York, Chairman; Dr. W. K. Bowling, of Tenn.; Dr. Chas. Fishbach, of Indiana; Dr. John Bell, of Philadelphia, and Dr. Z. Pitcher, of Michigan.

" Special Committee of Conference with the Committee appointed by the Teachers' Convention, and to report in May, 1860, selected by the President, Dr. Millar, viz: Dr. Thomas W. Blatchford, of New York, Chairman; Dr. Francis Condie, of Penn.; Dr. Bozeman, of Ala.; Dr. Brodie, of Mich.; and Dr. Sneed, of Kentucky.

"SPECIAL COMMITTEES.

" On Morbus Coxarius and the Surgical Pathology of Articular Inflammation.—Dr. Lewis A. Sayre, of New York.

" On the Surgical Treatment of Strictures of the Urethra.—Dr. James Bryan, of Philadelphia.

" On Drainage and Sewerage of large Cities; their influence on public health.—Drs. A. J. Semmes, C. Boyle, and G. M. Dove.

" Dr. Reese, from the Nominating Committee, in his final report, named several other special committees. But for these and other particulars our readers are referred to the full report of proceedings, which will appear in our June number, but for which we have no room at present.

Among the most important changes resolved on at this meeting was that introduced by Professor Lindsley, of Tennessee, and which was adopted, by dividing the Association at every annual session into sections, and to which the reading and publication of all the scientific and professional reports of special committees are to be referred. See our June number for official report.

DR. E. D. FENNER.

Our colleague and friend, Dr. E. D. Fenner, left for Europe on the 14th inst. He will visit all the principal hospitals of England, Ireland, Scotland, and the Continent, as far as time and opportunity will allow, and we have no doubt he will return to us in the fall both physically and mentally prepared to surround with increased interest and usefulness the Chair of Theory and Practice, in the new school, which he has for three years so ably and faithfully filled. Dr. Fenner is one of the working medical men of the South, and what gives inestimable value to his labors is the fact, undenied and undeniable, that he promulgates only those doctrines which he conscientiously believes to be *true*. We anticipate for our pages this summer interesting contributions from his pen, giving the result of his observations abroad.

On board the steamer which bore him hence it will be seen that his mind still dwelled on home and its medical interests, and he has furnished us the following letter which will be appreciated by all who know him:

VERATRUM VIRIDE AND CHLORINE IN YELLOW FEVER.—*My Dear Colleague:* As some practitioner may desire to try the new treatment for yellow fever which I brought to the notice of the profession in the October and November numbers of our Journal last year, I have concluded, before quitting the country, to leave you some plain directions for carrying out the same.

I repeat what has been said before, that I think we have in the veratrum viride and chlorine mixture medicines which are fairly entitled to be *considered remedies for yellow fever.* They will at least fulfill the following indications, viz: *completely control febrile excitement, and keep up the secretions of the liver, kidneys and skin.* Now these are not *all* the indications that are presented in yellow-fever, but they certainly are the principal ones and those to which our remedies are chiefly directed. If the febrile excitement be very moderate the V. V. will hardly be called for.

My directions, in brief, are as follows:

At the commencement of the attack order a hot mustard foot-bath and evacuate the bowels with a mild cathartic, such as castor oil, citrate of magnesia or Seidlitz powders. If the stomach be irritable, with bilious vomiting and a coated tongue, give a gentle emetic of ipecac or salt and mustard.

After this, if the fever be high, give five drops of the V. V. in a little water every four hours till the pulse be brought down to seventy, when the V. V. will be stopped, or the interval between the doses prolonged so as to keep the pulse at seventy. At the same time begin with the chlorine mixture and give two tablespoonsfull every four hours —thus V. V. at 2, chlorine at 6; V. V. at 8, chlorine at 10, etc. If the fever be moderate from the first, the V. V. may be dispensed with and the chlorine alone relied on and given more frequently, say every second hour. These doses are for adults. Children, even sucking infants bear the chlorine well, but the V. V. should be very cautiously given to them.

The repetition of foot-baths, sinapisms, spongings, enemata, etc., must be left to the judgment of the practitioner. I have no doubt that quinine in some way would be a valuable adjunct to these remedies, but I will not direct it at present.

The following is the chlorine mixture:

℞ Acid. Hydrochloric,
Aqua Distillata *aa.* ℥ii. Mix and add
Potass. Chlorat, ʒii.

Let this be labelled and kept on hand. For use prescribe as follows:

℞ Chlorine Mixture ʒii.
Aqua Distillat. oj. ♏

S. Give two tablespoonsfull every two or four hours *(pro re nata)*.

For drink I like orange leaf tea, lemonade, barley water. *Covering*—generally one-blanket. Do not raise up in bed after the first day until fairly convalescent.

With these two remedies as my main dependence in twenty-five cases of the bad epidemic last year I lost only two—one a pregnant lady who was delivered at the critical stage of the fever—the other a very delicate lady with no recuperative energy.

Dr. W. E. Kennedy told me he treated fifteen cases with these remedies and lost but one.

Dr. C. Beard treated eight cases and lost none.

Dr. S. Choppin treated eight cases and lost one.

Other physicians told me they had tried these remedies with happy effects. I hope others will try them if yellow fever should again appear in any of our cities or villages.

In my trip to Europe my attention will be directed mainly to Medical Institutions and the prominent medical men of the day; of all which I shall endeavor to write you from time to time as occasion may allow. I go in search of knowledge for the benefit of our students and those who will entrust them with their lives in coming time. Hoping to return with renovated energy and to meet both you and a host of them at the opening of our Lectures in November next, I remain, dear B.,

Yours, faithfully,

E. D. Fenner.

On board Steamer R. J. Ward, Mississippi River, May 16, 1859.

Prof. Geogre B. Wood has resigned the Chair of Theory and Practice in the University of Pennsylvania, and his post of Physician to the Pennsylvania Hospital. The former resignation takes place at the close of the next course of lectures (spring of 1860); the latter, at once. Dr. Francis G. Smith has been elected to the vacancy in the Pennsylvania Hospital (a first rate selection). Who will be the lucky successor to the Chair of Theory and Practice remains to be seen. It is a fortunate circumstance that Prof. Wood resigns a year in advance, as it will afford the Faculty and Trustees ample opportunity to look around them and make a careful selection.

As a former pupil of Prof. Wood, while he was Professor of Materia Medica in the old University, we must here express our regrets that he should have found it necessary to cease his valuable teachings. Prof. Wood is one of the sound and truthful teachers of medicine, as his pupils can testify, and as his books will ever assert; and it will be hard to fill his place.

And here we take occasion to call the attention of readers to the following circular issued by the distinguished gentleman in question. We sincerely trust that the remainder of his days may be devoted to the revision of our Pharmacopœia and the purification and elevation of the whole business of the manufacture and sale of medicines. It would be a holy cause, and he could do infinite good:

"DOMESTIC INTELLIGENCE.—*Medical Convention for Revising the Pharmacopœia of the United States.*—The Medical Convention for revising the Pharmacopœia, which met at Washington in May, 1850, provided for assembling a convention for the same purpose, in the year 1860, by the following resolutions:

"'1. The President of this convention shall, on the first day of May, 1859, issue a notice requesting the several incorporated State Medical Societies, the incorporated Medical Colleges, the incorporated Colleges of Physicians and Surgeons, and the incorporated Colleges of Pharmacy, throughout the United States, to elect a number of delegates, not exceeding three, to attend a general convention, to be held at Washington on the first Wednesday in May, 1860.

"'2. The several incorporated bodies thus addressed shall also be requested by the President to submit the Pharmacopœia to a careful revision, and to transmit the result of their labors, through their delegates, or through any other channel, to the next convention.

"'3. The several medical and pharmaceutical bodies shall be further requested to transmit to the President of this convention the names and residences of their respective delegates as soon as they shall have been appointed, a list of whom shall be published, under his authority, for the information of the medical public, in the newspapers and medical journals, in the month of March, 1860.'

"In accordance with the above resolutions, the undersigned hereby requests the several bodies mentioned to appoint delegates, not exceeding three in number, to represent them in a convention for revising the Pharmacopœia of the United States, to meet at Washington on the first Wednesday in May, 1860; and would also call the attention of these bodies to the second and third resolutions, and request compliance with the suggestions therein contained.

GEO. B. WOOD,
President of the Convention of 1850.

PHILADELPHIA, May 1, 1859.

N. B.—Medical and pharmaceutical journals will please copy the above notice.

NECROLOGY.—The telegraph brings us the sad intelligence of the death of Baron Humboldt. Throughout every civilized land men will sorrow to know that this great and good man is gone. He belonged to Science, and she will never cease to mourn for him.

CHLOROFORM IN NEW ORLEANS.—From the London Medical Times and Gazette we learn that "Dr. Hayward of the United States" (of Boston, we presume), has written a letter to the Paris Surgical Society, in which he recommends the abandonment of chloroform, and the substitution of ether. "He states that in all the large hospitals at Naples, Lyons, and in America, ether is alone employed," etc.

We must beg leave to correct an egregrious error into which Dr. Hayward has fallen, if he classes the Charity

Hospital of New Orleans among those wherein ether is used in preference to chloroform. We are a daily visitor to the Charity Hospital, and we do not recollect having seen ether administered except as a rare experiment. Since 1848 chloroform has been in almost daily use in the institution; it has been, and is still given to all sorts of cases, medical, surgical and obstetrical, and we do not know of more than one or two deaths from its use. Indeed, in all New Orleans, we have heard of but two deaths from the use of the agent, and we are not now certain that either of them occurred in the Hospital. A woman (a hospital patient), in the hands of an intimate medical friend, did one day appear to die under the administration of chloroform, but the tongue was quickly and forcibly drawn forward, and she respired again.

The fact is, our Boston brethren have a little local pride about ether which blinds them to the superiority of chloroform. But they have an up-hill business of it if they think of making other people endorse their ideas. We think we can confidently predict that New Orleans will never embrace ether as an anæsthetic.

THE CONVENTION OF MEDICAL TEACHERS, lately held at Louisville, Kentucky, failed to accomplish anything in the way of reform in the system of medical teaching in the United States. As the matter now stands, we believe that two committees are formed—one from the American Medical Association (among whom are no teachers), and the other from the schools represented at the convention of teachers—which committees are to make a joint report in

June, 1860. In the meantime, we, as the practical advocates of reform, await the result with some confidence still left in the power and the determination of the mass of the profession to inaugurate a wholesome change.

THE LATE SANITARY CONVENTION.—As yet we are without any other than newspaper reports of the proceedings of the Sanitary Convention lately held at New York city. We, therefore, refrain from the expression of any opinions for the present. We sincerely trust that the official reports will tend to give us a more exalted idea of the convention than would be prompted by those above mentioned.

LIST OF PAYMENTS TO MAY 25TH, 1859.—Drs. B. W. Humphreys, vol. 6, $5; R. B. S. Hargis, vol. 6, $5; P. B. McKelvey, vol. 5, $5; S. Wallace, vols. 5 and 6, $10; J. F. Harrington, vol. 6, $5; W. W. Perry, vols. 5 and 6, $5; H. P. Perry, vol. 6, $5; W. H. Foster, vol. 6, $2 on acc't; C. H. L. Smith, vol. 7, $5; R. Bein, vol. 6, $5; Bensadon, vol. 5, $5; F. S. S. McMahon, vol. 6, $5; J. Wilson Moore, vol. 6, $5; G. E. Elmer, vol. 6, $5; W. C. McGown, vol. 6, $5; J. W. Crawford, vol. 6, $5; J. W. Spencer, vol. 6, $5; Aug. Thibaut, vol. 6, $5; David McKnight, vol. 6, $5; George Caulier, vol. 6, $5; A. D. Evans, vol. 6, $5; Duperrier, vols. 2, 3, 4, 5, $18; D. W. Wilkinson, vol. 6, $5; R. L. Seale, vol. 5, $5; G. L. C. Davis, vol. 6, $5; S. Cartwright, vol. 6, $5; J. N. Folwell, vol. 6, $5; Chas. E. Kells, vol. 6, $5; Wm. Rushton, vol. 6, $5; A. Donnaud, vol. 6, $5; Thos. S. Garrett, vol. 6, $5.

EXCERPTA.

Case of Protracted Gestation—*By Dr. W. R. Stone, of Manhatten, Indiana.*—Case.—Mrs. K., aged twenty-four years, sanguine-bilious temperament, and of usually good health, lost her husband on the 17th of March, 1858, from which time, as the catamenia did not manifest itself, she deemed herself probably pregnant, which supposition induced her to consult me as early as the last of May, 1858, when I gained from her the following history:

Last menstruation on the 25th of February, 1858. Last sexual intercourse on the 10th of March, 1858. Feels somewhat different from a former gestation (having had one previous gestation), especially in an absence of gastric irritation, with which she was much troubled in the first.

As no urgent symptoms were present, I dismissed my patient, by informing her that she was likely pregnant, and by requesting her to acquaint me with any derangement of her general health that might occur, when we would more fully investigate her condition.

No further information of the case till the 13th of July, 1858, when she informed me that undoubted quickening had occurred on the 8th of July, making one hundred and thirty-three days from last catamenia, and one hundred and twenty days from last sexual intercourse.

From this time up to the 15th of December, nothing of unusual interest transpired, at which time (15th December), "spurious pains" occurred, lasting twelve hours, and regularly occurring on the eighth day, for five weeks, when they came up every second or third day, till the 3d of

February, 1859, at which time, and with a favorable labor, she was delivered of a female child, weighing eight lbs.

During the last two months of gestation, the movements of the fœtus were very strong, causing much suffering to the mother.

Resume of Dates :

Number of days from last catamenia to delivery, -	343
“ “ “ sex. inter. “ -	330
“ “ “ catamenia to quickening, -	133
“ “ “ sexual cong. “ -	120

Development of Infant.—The osseous system was extraordinarily well developed, the sub-cutaneous processes being well fitted, and firm ; the articulations firm and compact; the cranial bones immovably united by the sutures, and the posterior fontanelle entirely closed—the anterior also closed by the inner tablet, inasmuch as no pulsation was observable. The skin was freely organized, and of that fine tint characteristic of a three months infant. In a word, the general appearance of this infant was fully up to that of most infants three months old.

Peculiarities of Placenta, Liquor Amnii, etc.—About one-fourth of the structure of the placenta was osseous matter, arranged in lamella, and irregular granules. The placenta about the usual size. The liquor amnii normal in amount, of a light straw color, and quite viscid ; uniting, also, a strong, urinous odor. The membranes of sufficient firmness to form a basket that would support the child's weight, no doubt.

Character of Mrs. K.—The lady has always sustained an irreproachable deportment, and stood high in the estimation of those knowing her intimately. Indeed, she is distinctly reserved, and modest in her social intercourse with friends.

Opinion and Character of the Physicians who have seen, and are acquainted with the circumstances of the case.—The following physicians have seen, and examined the infant: Drs. Layman, Knight, Heavenridge, W. M. Denny, and R. B. Denny. They all entertain the opinion that this was a case of protracted gestation, and are fully satisfied that the child is legitimate.

It is but just to say of the above named physicians, that they sustain a good character with their professional brethren, and deservedly, too, as they are qualified for their business.

With this brief history, the case is submitted to the profession, only adding the assurance, that no effort has been made to "bolster up" the case on false statements, but a plain statement of facts has been aimed at.—*Chicago Journal.*

OVARIOTOMY.—Prof. Pope, of St. Louis, has recently reported four cases of ovariotomy, 2 fatal and 2 recovered.

Prof. Hamilton, of Columbus, reports 2 cases; 1 successful, 1 fatal.

Prof. H. states, that of 24 cases which have come to his knowledge, of operations performed in Ohio, 13 were fatal and 11 successful.

Dr. W. L. Atlee, in 1851, reported to the American Medical Association a synopsis of 222 cases of ovariotomy. Of these,

	Recoveries.	Deaths.
52 were of the minor section,	39	13
153 " " major section	95	58
17 Unknown,	12	5
	146	76

Of the 222 cases, 57 could not be finished—of these, 45 recovered, 12 died.

The Academy of Medicine, in Paris, discussed the subject of ovarian cysts in 1856 and 1857. They were almost unanimous against ovariotomy, Cazeau alone being in favor of it. They were equally unanimous in favor of injections of iodine, although admitting that it could only be successful in the unilocular form.

Prof. Miller, of Louisville, recently published an excellent article in the *American Journal*, which seems to be intended as a reply to the attack made in the Academy on the operation. The views of Prof. Miller are eminently just. He has himself performed the operation twice, with success. Still there are three things to be said in palliation of the extreme view taken by the Academy:

1. The operation has been abused: a number of cases having been operated, where it was easy to have determined that no tumor existed.

2. The constitution of the French and other women on the Continent are not as robust as that of the women of this country. This is owing, in part, to the nourishment of the laboring classes there being insufficient, and in part to a cause little suspected, viz: that animal life is less vigorous there than here. We have noticed this in regard to frogs, pigeons, rabbits, etc., which we have used for experiments in both places, and Dr. Brown-Séquard confirms this view.

3. Since the mania for ovariotomy has become so pressing, the palliative means, and particularly the injections of iodine, have been entirely neglected. This is an error. In cases of single cyst it is a safe and efficient remedy.

Prof. Miller attributes the performance of this operation to Dr. Ephraim McDonnel, of Ky., in Dec., 1809. This, if correct, is a national honor which ought not to be forgotten.—*Chicago Journal.*

EFFECTS OF POISONS DURING HUNGER AND REPLETION.—Dr. Köhler, in an interesting and very valuable paper, gives some curious evidence on the above subject. The animals subjected by him to experiment were rabbits, dogs, and pigeons; the poisons employed were strychnine, hydrocyanic acid, emulsion of almonds, and ether; and the absorbing surfaces where the poisons were applied or injected were the alimentary canal, the peritoneal cavity, the respiratory surface, and the cellular tissue. The experiments themselves are arranged in five groups, in each of which is noted the color and sex of the animal, the duration of the inanition, the weight of the body, the quantity of poison used, the commencement of the action of the poison, the time of death, and the difference in the period of action in fed and unfed animals. It has been held by all modern writers, that by hunger the energy and activity of all the organs are reduced; but it has also been maintained that hunger favors, strongly, the absorption of poisons. In the paper before us, Dr. Köhler, admitting and demonstrating the former of these opinions, disputes the latter, and adduces his experiments in proof that hunger prolongs the absorption and the reaction of poisonous substances. In offering a reason in the way of explanation of this statement, Dr. Köhler argues that during abstinence from food, the absorption of oxygen decreases till death, and the proportion of carbonic acid evolved is correspondingly diminished. The blood cannot, therefore, circulate with its accustomed rapidity during hunger, hence poisonous substances are incorporated and borne along with the blood with corresponding slowness, and exert their influences on the nervous system with proportionate tardiness. Starvation itself, to a certain extent, does not, according to this author, cause any diminution in the quantity of blood. The quantity is made up by the fluids from the tissues, and the blood becomes thinner and altered in quality, but not less in quantity. The same rule obtains after a small venesection. If, however, a large venesection is made, or if inanition is allowed to proceed to a considerable period, then is there a true decrease in the quantity of blood and a contraction of vessel. In the experiments referred to, where the starvation was never made to extend beyond sixty-six hours, the above consideration does not enter.

Regarding the parts of the body into which the poison was thrown, as contrasted in cases of animals well-fed and animals starved, no difference seems to have occurred; the larger the surface of contact, the quicker the absorption in both kinds of cases.—*Archiv fur Path. Anat. und Phys.*, von R. Virchow, July, 1858.

RESEARCHES INTO THE POSSIBILITY OF RECALLING TO LIFE TEMPORARILY, IN PERSONS DYING OF DISEASE—*By Dr. Brown-Séquard.*—A considerable number of cases of transfusion have satisfied Dr. Brown-Séquard that in mammiferæ dying of various diseases, and especially of peritonitis, life may be restored for some hours by the process, when the agony has all but ended in death; he concludes that in human beings who have already become unconscious, and in whom agony has commenced, the intellectual faculties, the senses, and speech, may be restored for some hours by the combined effect of transfusion, artificial respiration, and bleeding at the jugular. Dr. Brown-Séquard does not give us the result of his entire experience, but he finds that of eleven experiments made upon dogs, cats, and full-grown rabbits, four animals came to life entirely for two, three, and four hours, that three others recovered the circulation, respiration, and reflex action for one or two hours without restoration of the voluntary movements or sensibility, while in the four remaining animals there was no result, except a slight increase of the movements of the heart. The following is a brief summary of one experiment, which the author gives in detail:

In October, 1851, a dog in whom the abdominal sympathetic had been divided was attacked with peritonitis and death was at hand. Voluntary and reflex movements had entirely ceased; there was no respiratory action, and the convulsions of death were limited to a few muscular tremors; the fæces and the urine were expelled, the pupil was dilated, and no movement of the heart was perceptible. A silver ⊤-shaped tube was now inserted into the left carotid of the dying dog, and connected with the carotid of another dog, which was attached firmly to a table. The healthy arterial blood at once passed to the head and heart of the dying animal. At the same time, the left jugular vein and one of the femoral veins of the dying dog were opened. The jugular almost immediately, and the femoral after twenty or thirty seconds, yielded some blood. The period of transfusion lasted two minutes, and ligatures were placed on the carotids of both animals. The jugular vein was left open four or five minutes, during which the heart was felt beating. Gradually the pulse was restored as the blood flowed from the jugular. Artificial respiration was then had recourse to, and continued for half an hour. Eight minutes from the commencement of the insufflation, the cornea became sensitive, and soon after, respiratory movements were perceptible. After twenty minutes, the animal executed voluntary movements, and on leaving off insufflation, respiration continued regularly. The return to life was complete as regards all the chief functions of animal and organic life. Though feeble, the animal raised himself on his fore-feet and wagged his tail when caressed. The dog lived eleven hours and a half after the transfusion. *Journal de la Physiologie, Oct.* 1858.

ON THE INDICATIONS FOR THE APPLICATION OF THE FORCEPS. Among the indications those derived from the insufficiency of pains are the most frequently assigned, and the most liable to give rise to errors in practice. The head remains at the floor of the pelvis, the pains, though more or less strong, being insufficient in the individual case to expel it beyond the external genitals. The patience of the accoucheur becoming exhausted (much sooner indeed than that of the woman), he has resort to instruments in order to terminate the labor. That such a procedure, common as it is, cannot be justified, scarcely requires to be said.

Much more frequent in occurrence than these examples of actual insufficiency of pain (which the author has always found at this stage of labor, especially in primiparæ, a very rare circumstance) are the cases in which the head, in spite of strong pains, remains at the floor of the pelvis, and although pressed down by every contraction towards the mouth of the vagina never distends the perineum. Well aware of the impropriety of too early or of useless operative interference, at the beginning of his practice, Dr. Spiegelberg contented himself in these cases with temporising and pain-increasing measures, too often, however, with the result of still having to employ the forceps at last, as it seldom happened that the pains alone proved sufficient. Under these circumstances, a large proportion of the children were still-born. Taught by this experience, he afterwards in such cases resorted to the forceps earlier, and was, as regards the children, much more fortunate. He was also exceedingly surprised at the ease with which the head, apparently so firmly fixed, was extracted. Traction was scarcely required at all, a suitable adjustment of the instrument and a few lateral pendulum-like movements commonly sufficing to effect the delivery. Sometimes all was completed with one hand, the other supporting the perineum. While in those cases in which the ergot had been used to effect the propulsion, retension of urine, erosions, and inflammation of the vagina or vulva were met with, no such occurrences followed the use of the forceps. The cause, which in these cases prevents good pains proving effective, and renders a forceps operation so easy of execution, is a purely mechanical one—arising from the too great flexure of the head upon the chest. The face is turned towards the coccyx, the vertex rests on the perineum, and the occiput lies under the symphisis at the mouth of the vagina. The uterus, acting upon the trunk of the child, forces the occiput by means of the vertebral column, deeper every pain, pressing the chin more forcibly towards the chest. For the birth of the child, however, it is necessary that the neck should be stretched out so as to raise the head from the chest. The contractions of the perineal muscles, especially the levator ani, which, as well as those of the abdomen, are in a state of voluntary or of reflex activity, force the cranium still further upwards and backwards, *i. e.* towards the chest. The pains, however increased in severity, prove useless, and the operation of the forceps is easily explained. When the blades are passed in at the sides of the head in the direction of the prolongation of the axis of the outlet of the pelvis, they remove the chin from the chest, stretch out the neck, and terminate the delivery at once. The head had already been forced through the pelvis, and the forceps has only to conduct it over the perineum. They do not act by traction, but as a lever or instrument for bettering the position. They must be passed up slowly, or the perineum may be injured. What is here stated has been but little observed, and as far as Dr. Spiegelberg is aware, Cazeaux is the only author who has clearly set it forth. If this excessive flexure of the head does not furnish the indication in nine out of ten forceps operations as stated by Cazeaux, at least it is the most frequent cause of their employment, and places this in the most favorable light. Just as the weakness of pains is a rare, so is this condition a frequent indication. Dr. Speigelberg hopes that this communication may not be interpreted into a recommendation, to have recourse hastily or uselessly to operations. But he adds that some of the worst consequences result from abstaining from operations when solid indications for interference present themselves; and that skill in employing his instruments is of even less importance to the obstetrician than the power of detecting the cases which justify his resorting to them.—Dr. Speigelberg, *Monatschrift fur Geburtsk,* Band xi, pp. 124–126.

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On the Prevention of Laceration of the Perineum.—Dr. Mattei gives (*Viertelijahrschrift, f. p. Heilk.*, 1858) the following views on the means of preventing laceration of the perineum. It is especially necessary that the head pass the vulva in a favorable direction. This can only happen when it passes with the necessary degree of flexion. While the occiput passes under the pubic arch, the face has not yet quitted the pelvic outlet; first, when the upper part of the neck comes under the pubic arch, can the extension of the head (or the separation of the chin from the breast) begin. If the distension of perineum begins too early, the head must pass the vulva with unfavorable diameters—namely, with the great oblique, or great or straight diagonal diameters. Such a passage easily causes laceration. Hence it is the task of the physician to prevent a premature distension of the head. This he effects by placing two fingers between the labia, or in some cases between the pubic arch and occiput, so as to bring the head downward and outward, at the same time laying the other hand on the hinder part of the perineum, upon which the face is lying, and pushes this upward. This manœuvre is to be executed during the pains, which will thus protrude the head forward in the requisite arc. A very simple means of expediting the birth of the head consists in compressing firmly the distended perineum with the whole hand. This resembles the squeezing out the kernal from a cherry. On the passage of the shoulders, care must also be taken lest the two shoulders pass together.—*British and Foreign Medico-Chirurgical Review, October,* 1858.—*Cincinnati Lancet and Observer.*

TREATMENT IN CASE OF AN OVER DOSE OF CHLOROFORM.—Dr. Erichson in his excellent work on Surgery says: "the treatment of an over dose of cloroform is conducted on two principles: 1st, the establishment of respiration, either natural or artificial, so as to empty the lungs of the vapor contained in the air-cells, and to aid the oxygenation of the blood; and 2d, the stimulation of the heart's action, and the maintenance of the circulation.

The first principle of treatment—that of reëstablishing respiration, is most serviceable in the asphyxial form; the other, that of stimulating the heart, when the syncopal symptoms are present. But in all cases they may most advantageously be employed in combination. The treatment to be adopted on the occurrence of dangerous symptoms, or apparent death from cloroform, is as follows:

1. The administration of the vapor must at once be discontinued.

2. The tongue should be seized with the fingers, with a hook or forceps, and drawn out of the mouth; and the larynx pushed up so that the glottis may be opened.

3. Fresh air should be admitted around the patient by opening doors and windows, and by preventing bystanders or spectators from crowding around.

4. All constriction should be removed from the patient's throat and chest, and these parts freely exposed.

5. Artificial respiration must *at once* and without delay be set up, whilst these other means are being carried out, either by the surgeon applying his mouth to the patient's lips and thus breathing into the chest; or, what is preferable, by the alternate and steady compression and relaxation of the patient's chest.

6. Electricity should be applied freely over the heart and diaphragm through to the spine, by means of the Electro-Magnetic or other convenient apparatus.

7. Friction may be employed to the extremities; a little brandy rubbed inside of the mouth; and cold water dashed on the face, as accessory means.

LITHOTOMY—NO STONE REMOVED.—A boy, presenting in a marked manner the usual rational symptoms of vesical calculus, was placed under the care of Dr. P. F. Eve, in October last. On examining with a sound, the instrument did not strike upon a body, but when it was pushed high up, its beak came upon a rough substance, which Dr. Eve took to be stone. This opinion was also confirmed by the other surgeons who assisted him. On Oct. 26, the lateral operation with a scalpel was performed, but no calculus could be reached by the finger, or removed by the forceps. Twelve days after the operation, the patient died from peritonitis and erysipelas of the face, and he had also passed several intestinal worms. On *post mortem* examination, there were found worms in the intestines, and pus on the peritoneum around the bladder; and on opening the bladder its walls were found thickened and the cavity contracted, having the internal surface ribbed-like, particularly near the median line, and covered at points with a calcareous deposit, varying from small grains of sand to some as large as a buckshot.—*Nashville Med. Jour., Dec.*, 1858.

AMPUTATION AT THE HIP-JOINT.—The Chicago Medical Journal, in announcing the performance of this operation by Dr. Brainard, quotes from Dr. Paul F. Eve the statistics concerning it in this country. It appears that amputation at the hip-joint has been done six times in the United States, four times successfully. In one other case, the patient recovered, but died subsequently from a return of the disease, which was enchondrona; and in one case the result is not stated. Dr. Brainard's case, which makes the seventh, was unsuccessful. Dr. Warren performed this operation more than a fortnight ago on a lad, 17 years of age, who will in all probability recover. The particulars of the case will be reported in a future number of the Journal.

PROLAPSUS UTERI.—Dr. Bonordon observes that as a prolapsus uteri usually arises from hypertrophy of the organ and a relaxed state of the round and broad ligaments, the indications are to remove the hypertrophied condition, and to strengthen the ligaments. In two cases he has been enabled to completely fulfill them by internal remedies. He administered 20 drops of *tr. ferri. mur.* morning and evening, giving with the evening dose also three gr. of *secale cornut* and ten gr. of *gum galbanum*, the external parts of generation being well rubbed several times a day with Hofmann's *balsamum vitæ.* At night, the patients were directed to lay with the pelvis somewhat raised. The secale was continued for fourteen nights, next alternate nights, then a while at long periods.—*Medical Journal of North Carolina.*

A SECRET WARD.—"In one part of the establishment at Wurzburg, there is a suite of six or eight apartments, which is called the *Geheime Abtheilung*, or secret department. This feature distinguishes many of the German Lying-in Hospitals, and it enables the victims of seduction and illicit love to conceal their shame from the open gaze of the world. Here, the young lady, who has 'loved not wisely but too well,' may retire from society before her disgrace becomes apparent, her friends believing meanwhile in some pleasing fiction, that she has gone on a tour to to visit England, or to enjoy the gaieties of Paris. Here she enters, seen by no human eye, save that of the hospital attendants, who all are trustworthy, and sworn to implicit secrecy; here she lives till her confinement is past—never called by her name, but merely designated by a number; and when the event is over, she again passes out into the world, and perhaps talks of the celebrities she has seen in Pall Mall or Rotten-row, or of the beauties of the Champs Elysées."—*Dr. Adam.*

NEW ORLEANS

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RESUMÉ OF PRACTICE, HOSPITAL AND PRIVATE.

By Dr. C. BEARD, Professor of Anatomy, N. O. School of Medicine.

The cases referred to, in the following pages, were seen within the past eleven months—a small proportion in private practice, the remainder in patients inmates of my infirmary, or out-patients, visiting daily.

During the past winter I was particularly fortunate in being able to show to those of our students, who felt interested in the diseases of the eye, a great number and complete series of cases. I doubt much if any eye-clinic in this country presented more material for practical instruction.

Cataract.—The number of cases which have fallen under observation has been large and many of them interesting. They may be arranged in the following manner:

Total number of patients with cataract, 23—whites, 15, and negroes 8, of whom 14 were males and 9 were females; affected in both eyes, 16, in one eye only 7; uncomplicated cataracts, 24; complicated more or less seriously, 17; total number of cataracts under observation, 41. Of the uncomplicated the following varieties were seen: hard lenticular, 6; soft lenticular (of which 4 were congenital), 19; semi hard lenticular, 16; milky, 3. Of the complicated there were from traumatic causes three—viz: one from penetrating wound with splinter of iron, one from a kick of a horse, and one from falling forward of the lens, after puncture of anterior chamber. With dislocation, 2, of which one was forward into the anterior chamber, and one reclining backwards. With synechia posterior, more or less marked, 2. With thickened and opaque anterior capsule, result of inflammation in aqueous chambers, 4. Cretaceous deposits on capsule, 1. With amblyopia or advanced amaurosis, 2. With advanced synchyris, 1. With glaucoma, 2. In these cases the following operations were performed, viz: extraction by superior corneal section, 11; extraction by inferior corneal section, 3; extraction by linear corneal section, 2; reclination, 9; disruption (keratonyxis, 7, sclerotonyxis, 5), 12. There were four cases in which it was not deemed advisable to operate.

Of the eyes operated on by disruption the majority required a repetition of the operation; in one case the needle was used three times. It was necessary to repeat reclination in four cases. In two cases of attempted extraction, by superior section of the cornea, it was found impossible to extract the lens, owing to the tough condition of the capsule in one instance, and in the other, the softened condition of the vitreous humor prevented its accomplishment. In the first of these, after vainly attempting to lacerate the capsule with the cystotome of Graefe, it was deemed expedient to desist and allow the wound to heal. This took place kindly, and reclination of the whole crystaline apparatus was decided upon, but the patient, a man of seventy, suffering in health from the confinement consequent upon the operation, determined to return home, since which time he has not been seen. In the second case, when unsuspected softening of the vitreous body existed, the corneal cut was executed without accident, but the slightest pressure on the globe gave rise to an exudation of vitreous humor; proceedings were arrested, and the wound permitted to heal with the cataract unremoved. This patient died of an attack of apoplexy, but not until a complete union of the cut had taken place. In one case (already reported) of extraction, about one-half of the vitreous humor escaped, owing to its softened condition; the patient recovered with good vision.

Of the traumatic cases: The first was a wound of the cornea and iris with a splinter of iron; the patient was a workman in a foundry; the projectile had divided the cornea at its outer and inferior portion, penetrated the iris, and wounded the capsule and lens; it had been removed immediately; the patient entered the infirmary six days after the accident; he had been purged, and a solution of acetate of lead used, but no mercury or bella-donna; the wound of the cornea seemed to be united, but was not completely cicatrized, and a portion of the pupillary margin of the iris adhered to it; the pupil was contracted, the lens opaque, the vessels of the sclerotic much congested, and the iris somewhat discolored; the eye was a little softer than natural, owing, probably to a slight oozing of the aqueous humor through the wound. The patient was put upon active antiphlogistic treatment—leeches, mercury and purgatives, while a strong solution of atropine was dropped into the eye and applied externally; manifest improvement followed this course; in a few days the pupil dilated considerably, and congestion disappeared. As soon as the condition of the eye warranted it an attempt was made to extract the lens; this was safely accomplished, although, owing to the diminution of the anterior chamber, consequent on the synechia, considerable difficulty was experienced, and it became necessary to remove a greater portion of the lens with the scoop of Daviel, introduced through the wound. The cut healed kindly, and at the moment of leaving the infirmary the capsule, which had become thickened and somewhat opaque, from the inflammation of the anterior portion of the globe had contracted to such an extent that the patient had moderate vision, and the eye was in such a condition as to admit of the removal, by the needle, of the remaining opacity at some future time.

In the case of cataract, from a kick, severe iritis had ensued, and, although the patient, from his statement, had been actively treated, and the pupil kept open with bella donna, agglutination of the iris to the capsule existed with some irregularity of this opening. Patient was operated on twice with the needle, introduced through the cornea, and the opacity is now in the process of removal by absorption, and the case promises well.

The third case, classified as of traumatic origin, was observed in a negro girl affected with aquo-capsulitis, which had resisted a variety of treatments. One eye was disorganized, and vision almost abolished; in the other the disease had not progressed so far. On her entrance to the infirmary the pupil of the eye, least affected, was dilated with atropine, for purposes of observation, and a few days subsequent, but while the pupil was still widely open, it was determined, in connection with an alterative treatment to adopt the plan of Wardrop in this affection, and puncture the anterior chamber. This was properly done, and a sufficient portion of the aqueous fluid evacuated. The eye was covered and the patient put to bed. On examination, six hours later, patient exclaimed that she was blind, and on inspection, a complete soft lenticular cataract explained the cause. I attributed the opacity in this instance to a species of partial dislocation of the lens, occurring at the moment of the evacuation of a considerable quantity of the aqueous fluid while the pupil was widely dilated. I remember an analogous case, observed three years ago, in the eye wards of the Charity Hospital, which I caused to be reported by one of the resident students. In this instance the conditions under which the lesion occurred were the same—that is, a sudden evacuation of aqueous humor, while the pupil was in a dilated condition; but the evacuation was the result of a perforating ulcer of the cornea. The negro girl, subject of this observation, was operated on a week after the formation of the cataract; it was quite soft, and removed by the linear section of the cornea; the wound healed kindly, and the patient had her eyes opened by the third day.

Of the cases of dislocation of the lens, one was observed in a white man, a laborer; the other, in a negro.

In the first the change of position of the lens seemed to be spontaneous, or, at least, the patient could only tell us that he found himself suddenly half blind one morning, soon after breakfast. The lens was seen in the anterior chamber, opaque and apparently invested by its capsule; it was removed by the inferior section of the cornea.

In the case of the negro, no information could be obtained as to its cause. The lens, opaque and apparently invested by its capsule, was situated behind the iris, reclined but subject to changes of position when the head was moved. It was thought best here to attempt to lacerate the capsule, in which it seemed to be inverted, and break it up, in order for its removal by absorption. This operation was made through the cornea. After the introduction of a needle, it was found impossible to rupture the capsule from the sinking of the lens in the vitreous humor upon the slightest pressure, this softened body affording no *point d'apui*, a second needle, introduced through the cornea, after the plan of Bowman, in disruption, obviated the difficulty, for while the lens was held firmly, by being transfixed by one needle, the other was used to break it up.

Absorption went on well in this case, and there was a marked diminution in the size of the opacity. Unfortunately, the patient died of pleuro-pneumonia before its complete disappearance.

I was much pleased with the plan of Bowman, in disruption of the lens, as here adopted. I have no doubt that the second needle is of great service in such cases, more especially when the operation is secondary and the capsule thickened and tough, as is so frequently observed. After the cornea is penetrated, and the first needle firmly fixed in the opacity, it serves as a point of resistance for the second, and an opaque membrane may be torn into shreds in the centre, without making any traction upon the points to which it is attached at its periphery. Any one who has ever attempted a secondary operation for the removal of tough thickened capsule, or any of those deposits, the result of inflammation after operation for cataract, has, doubtless, experienced the difficulties presented, and will readily appreciate any method which promises to overcome them, as will, we are sure, that of the English oculist.

It will be observed, in glancing at the recital of the different varieties of cataract, which came under observation, that no cases of the capsulo-lenticular variety are mentioned, excepting five, evidently of inflammatory origin. We are inclined to believe, after long and by no means restricted observation, that such cases, if they do exist, are exceedingly rare, and that capsular opacity never takes place unless there is at the same time observed some morbid process going on in the anterior portion of the globe, either strictly inflammatory or of a nature analogous to it. In fact, the observations of the latest writers on the nature and ætiology of the affection of the capsulo-lenticular apparatus lead to the inevitable conclusion, that the tough elastic homogeneous membrane, known as the capsule, is never, under any circumstances, found opaque, when subjected to the searching scrutiny of the microscope; and that the opacities which it at times presents, be they of a plastic or calcareous nature, are always readily removable by careful microscopic manipulations, leaving the true membrane in its normal condition of perfect transparency.

The capsule is not subject to inflammation in itself, and any opacity which it may present is the result of inflammation of the neighboring parts, and a consequent deposit upon it. Wounds of the capsule are not productive of inflammation of its tissue, or, if they are, the process is different from that observed in other membranes, for, we certainly find no opacity, except in cases where a high degree of inflammation of other parts of the anterior and internal portion of the globe has given rise to the extravasation of lymph, which has been deposited on its surface. If wounds of this membrane gave rise to inflammatory process and consequent opacity, we should have no cases of successful extraction or even reclination, for, in both operations it is lacerated.

We have ourselves frequently punctured the lens and capsule in rabbits and guinea pigs, without producing traumatic cataract, and, after a certain lapse of time, examined the apparatus, but in no instance has the capsule been found altered in condition when the lens was of an almost milky white.

It is an exceedingly difficult matter to establish, by any statistical data, the relative value of the different operations now performed for the relief of cataract. The tendency of reporters to view with a favorable eye the results of their own cases and the prejudice of operators, in favor of this or that method, sufficiently explains the cause why some surgeons have established rules from which they are loath to depart, and use a favorite operative method in a case to which, to an unprejudiced mind it would seem ill-adapted—thus bringing reproach on that which does not deserve it. Exclusiveness of this kind is fatal to any system.

"Before forty use the needle, after forty extract," says a celebrated German oculist; we cannot appreciate the wisdom of this axiom, if any it offers, certainly in this country, where soft, even fluid, cataract is so frequent; in the aged, a period of life when synchesis often accompanies it, such a rule would be disastrous.

In France, extraction is now par excellence the operation. The followers of Barth, Beer, Rosas and Jœger, of the Vienna school of oculists, have made it preëminent in Germany, and it is now rapidly gaining favor with English surgeons. In Italy, Scarpa, and the triumphs of his needle, have not yet been forgotten, but extraction is gradually creeping into vogue. In this country alone is the palm given to the ancient operation; at least it is that, which, from all we can gather, is the most frequently chosen. In an observation of twelve years, we have known extraction to be performed in the Charity Hospital of this city but times, a remarkable fact when we consider the number of beds reserved for eye patients, and that this has been for years, and is now, the only charitable institution open for the reception of such cases in this city.

For ourselves, we prefer extraction, and feel convinced, that it is more generally adapted to all cases than any one method. We have observed inflammation follow the needle operation more frequently than extraction, relative number of cases being the same, and even when keratonyxis is performed in soft cataract, such an accident is not at all rare as late as a week after the operation from the tumefaction of the lens, due to imbibition and consequent pressure upon the iris. There are but two contra indications to extraction which are real; extensive synechia, or advanced synchysis; others, such as small palpebral fissure, nervousness of patient, etc., have disappeared with the advent of chloroform. The ordinary superior section is perfectly adaptable to semi-hard cataract, and we believe is preferable to the use of the needle in all uncomplicated cases, while our reading, and the experience of three cases leads to the firm conviction, that the linear section, as revived by Graefe, is the best operation at every odds for the soft variety.

It will be noticed in our report of the cases of cataract, that extractions are in a ratio of about one-third to the whole number of operations, a fact apparently somewhat at variance with our above expressed preferences. This will be explained by glancing at the comparatively large number of complicated cases, and by the fact that in four patients upon whom the operation would have been performed, prejudice against *the use of the knife* was such as not to be overcome by argument.

Artificial Pupil.—This operation was performed twenty-eight times. The cases were not selected, and in many instances operated on when the nature of the case precluded much hope of success, as for instance, in atresia pupillaris, with posterior synechia, and the atrophy usually attendant on such a condition of the globe. The operation was performed on both eyes only in those cases in which a negative result had been obtained in the first operation; and in three cases secondary operations were made for the purpose of enlarging the existing aperture in the iris. Iridectomy was chosen in nearly every case, being of easier performance and presenting this advantage over iridodialysis, that the opening can be located nearer the centre of the iris. The instruments used were the curved and straight iris forceps of Charrière, modified by Tiemann, curved scissors and a cataract knife. The latter instrument is found to enter the anterior chamber more readily, than the lance pointed cornea knife of Désmarres, generally used in this operation. Elevators were usually dispensed with, the fingers of an assistant being preferred. About one-half of the patients were operated upon whilst under the influence of chloroform; of these one was a girl of three years of age. It may be observed, that in the use of the anæsthetic, it was found necessary to administer it to its fullest extent, the ocular and palpebral muscles seeming to be the last to yield to its influence. Inflammation, as a result of iridectomy, has been rare, and, rather strange to say, when the vascularity of the iris is considered, hemorrhage into the anterior chamber was observed only in a few instances; when this did take place the incision in the cornea was kept open for a moment, thereby permitting the escape of the effused blood, mingled with aqueous humor, and decreasing the quantity to be removed by absorption. In the cases operated without chloroform pain was complained of only in a few instances.

It may be mentioned, as a fact which has frequently fallen under our observation, that excision of a portion of the iris relieves the photophobia, so often observed in some of the conditions, which render the operation necessary; as, for instance, in posterior synechia with atresia. This is doubtless due to the fact, that the ciliary circle is relieved of the traction made upon it by the radiated fibres of the iris—traction which is kept up by the continued diminution of the natural pupil, consequent on the shrinking of the lymph bands which unite it with the capsule. As regards the cases in which the operation for artificial pupil should be performed, our experience, present and past, has led us to the conclusion, after Graefe, that iridectomy should be resorted to not only for the purpose of restoring vision to the patient, in cases proper for it, but also as a means of relieving the painful and frequent inflammation of the iris, to which those affected with atresia pupillaris and the usual synechia are subject; and, moreover, that its early performance in cases of closed pupil, from badly treated or unrecognized iritis, will prevent the atrophy of the globe, so frequent under such circumstances, and relieve any chronic phlogosis which may exist.

Chalazion and Encysted Tumors of the Eye Lid.—The operation for the first of these affections have been performed by the external incision—in most instances by a simple eliptical cut, which, after the lips of the wound are brought together with the isinglass plaster, unites readily, leaving scarcely any cicatrice.

In two or three cases the nitrate of silver was applied, when portions of the gelatino-fibrous tumor remained. In the removal of the encysted tumor of the lid it was usually found impossible to excise the whole of the sac without opening it and giving issue to the soft sebaceous matter which it contains; the sac walls were then snipped away with the scissors, and the lips of the cut brought together. Désmarres's lid compressors are serviceable, as by this means the operation can be completed without the escape of blood; moreover the lid is firmly held.

In several cases of this affection a second operation became necessary.

Pterygion.—Most of the cases observed took their origin at the inner canthus, the apex of the triangle being attached to the cornea at or near its inner margin; in two instances it had progressed so far as to interfere with vision. One case was observed in which the base of the membrane was at the external angle, and in one instance (the patient, a clerk at one of our railroads), the affection was double—the inner membrane being, however, the larger of the two. The instruments used in the removal of pterygion were the mouse-toothed forceps and cataract knife; the membrane being seized at its apex and dissected back as far as the crescentic fold of the conjunctiva. No cases of extensive irritation occurred, and no applications were made after the operation but cold water.

Polypus of the Conjunctiva.—This rare affection was observed in three instances. The first was the case of a distinguished young civil engineer of this city, who had been troubled with conjunctival irritation and a sensation of uneasiness in the right eye. Upon examination, a pear-shaped tumor, about twice the size of a grain of wheat was discovered, lying in the inferior oculo-palpebral fold of the conjunctiva and attached to the bottom of the sulcus, some four lines from the caruncula, by a narrow pedicle; this was removed without pain or unpleasant consequences. The next case was a young man from Galveston, Texas, who had undergone a thorough course of nitrate of silver, without other result than an increase of the troublesome symptoms. The polypus was larger than in the first-mentioned, and the pedicle not so well defined. Its removal was followed by relief in six or eight days of the conjunctivitis, to which he had been for some time subject. The third instance was observed in a young lady, daughter of the superintendent of one of our State beneficent institutions. She had been subject to attacks of conjunctivitis, slight but troublesome, for several years; in the intervals the eyes were usually red and watery. The evil had latterly increased to such an extent that the father brought her to this city for surgical advice. A distinguished surgeon here pronounced the affection granulatious (without, however, everting the lid), and advised the use of sulphate of copper. An *Eye Doctor*, to whom she next applied, said they were fatty tumors. This patient presented, on everting the lids of each eye, innumerable polypi, from the size of a pin's head to that of a grain of wheat—some sesile, others attached by a narrow pedicle to the oculo-palpebral folds. The excrescences seemed to increase towards the inner corner of each eye. The palpebral conjunctiva, usually the seat of granulations, as well as the bulbular conjunctiva, where only fatty tumors (Pinguecula) are found, was healthy, if we except a congestion of little moment.

The number of polypi removed in this case may be estimated from the fact that, before being placed in alcohol, they would have half filled a common-sized thimble. They were removed by the scissors with the happiest result.

More particular mention is made of these cases, for the reason that they all came under observation in one year—a singular circumstance, when their comparative rarity is considered. Mackenzie cites Laurence, as having seen some instances, and himself as having observed on several occasions a small reddish hemorrhagic tumor, located upon or in the immediate vicinity of the caruncula. Wharton Jones mentions them as occasionally occurring, and Tavignot speaks of them as "tres rare," while Désmarres has never seen them. There can be no doubt of the correctness of the diagnosis in this case, as the matter removed, presented, when examined under the microscope, all the characters of mucous polypi.

Staphyloma.—Three operations have been made for the relief of staphyloma—in two instances, for the purpose of reducing the globe, for the application of an artificial eye, and in the third, to relieve constant pain from over distension. I usually pass a cataract knife horizontally through the tumor, bisecting it, remove the lower lip with scissors, extract the lens and a sufficient quantity of the vitreous humor; then, by closing the eye lid, the upper remaining portion is pressed down in such a manner as to serve as a flap, almost closing the opening. Pain and extensive inflammation occurred in one of the cases cited, and was treated antiphlogistically, subsiding in a few days. A proper sized and movable stump in all of these instances was obtained.

Symblepharon.—Two operations were performed for the relief of symblepharon. In one case the affection presented more the appearance of pterygion—the band uniting the lid with the globe, being so long as to permit of nearly unimpaired movement; it was narrow at its point of attachment, which was at the superior portion of the cornea by one extremity and near the oculo-palpebral fold of the upper lid by the other. It was somewhat irregular in shape, and a probe could be readily passed between it and the globe. The band was removed from its attachments by knife and forceps. No treatment for prevention of readhesion was found necessary. In the second case almost complete soldering of the upper lid with the globe had taken place; the right eye was, however, of the natural tension, and perception of light was good. The patient was blind in the left eye, and the operation was attempted with the faint hope that a portion of transparent cornea would be found upon the detachment of the adhesions, permitting of the formation of an artificial pupil. The lid was dissected from the globe with some difficulty, and a gold plate, adapted to the shape of its anterior half, introduced between it and the upper lid; this is worn without pain. The patient is still under treatment.

Purulent Ophthalmia.—Of these affections a large number have been treated, although notes of only a few have been taken.

Five cases of ophthalmia blenorrhagica came under observation, of these three were seen within the first thirty-six hours, and one as early as twelve hours after the attack. The plan of treatment adopted was found to answer, excepting in one case. We usually have the affected eye thoroughly freed from secretions by means of injections of warm water; if the lids are closed from tumefaction they are opened with the elevators. As soon as all traces of pus have disappeared, a solution of from thirty to fifty grains of nitrate of silver to oz. is applied with a hair pencil, in such a manner as to affect the whole surface of the conjunctiva, both bulbar and palpebral; this, after the lapse of a minute, is then decomposed with salt and water, and the lids closed again. The palpebrae are injected with water every half hour to keep them free from secretions, and iced applications made continuously. When ecchymosis shows itself, threatening strangulation of the cornea, the overhanging tumefied bulbar conjunctiva is freely excised with scissors and forceps, while scarifications are also made when necessary. It is seldom found requisite to apply the strong solution more than twice. In connection with this local treatment purgatives with calomel and opium should be used, the latter in sufficiently large doses to relieve pain. The pupil should be kept open with occasional instillations of atropine, in order to preserve its integrity and that of the lens in case inflammation should extend internally.

In the purulent affection of new born infants a somewhat similar plan of treatment should be made use of. Twenty grains solution of nitrate of silver is sufficient in these cases, applied once, but followed by frequent instillation of a weak solution of sulp. copper with wine of opium. The eye cannot be injected too frequently with warm or tepid water. Under this plan of treatment we have had no bad results from the affection when the patient was seen previous to implication of the cornea.

Aquo Capsulitis (*Keratite Ponctué*).—This affection, of easy diagnosis, when its characteristic feature is once understood, and tractable enough when properly managed, is, we are convinced, frequently overlooked or mistaken for other of the ophthalmia, ill treated and productive of much anxiety to both physician and patient. We have observed seven cases.

It is usually seen, after it has existed some time, as with the exception of that from the photophobia pain is not a prominent symptom. The conjunctiva is generally more red than usual, and the straight vessels of the sclerotic congested. The characteristic feature, however, is the peculiar appearance of the cornea. This tissue presents deep seated specs, varying in size from the point of a pin to that of a pin's head, disseminated throughout the lower portion of its internal surface, and more agglomerated towards the centre. The cornea presents also a somewhat hazy appearance at some point, more or less marked in the different stages of the affection. The pupil is generally smaller than normal, and there is some supra-orbital pain. The globe is very frequently more tense than natural, and the cornea has been remarked to present a greater degree of convexity. Whether this be an affection of the membrane of Desmet, lining the internal surface of the cornea, or the epithelial layer internal to it, is a matter of but little importance practically. The affection—the prominent symptoms of which are here sketched—resists almost every plan of treatment, as far as our experience extends, with one exception: puncture of the cornea and evacuation of the aqueous humor. Among the cases cited above three left hands without any improvement; the remaining four, in which alone puncture of the anterior chamber was made, recovered. The operation is easily performed with a cataract knife, and is productive of but little pain, and the wound heals in twenty-four hours. The knife should be made to enter at about one-half a line from the margin of the cornea, and not removed from the wound until a sufficient quantity of the fluid has escaped. This treatment, together with the use of alteratives, when indicated, will, we think, usually suffice to effect a cure.

Iritis.—Although notes of but few cases have been taken, the number treated in private practice and in my infirmary would certainly exceed thirty. Of these, by far the largest proportion were of a specific nature, mostly syphilitic in fact, but three instances are remembered in which the disease was of a non-specific character. In one instance the patient was affected with articular rheumatism, and had double iritis.

In New Orleans, and we suppose the rule holds good in other large commercial cities, syphilitic iritis may be classed in frequency of occurrence as second only to catarrhal inflammation of the eye, and we speak from an experience of five years service in the eye wards of the Charity Hospital of this city. Few diseases are more prevalent, and none are so badly treated, especially among the poor. A beneficent Providence has willed that most of the ills, that flesh is heir to, should be self-limited ; this is a terrible exception. Increasing with its age, it defies the healing influence of time, and when left to the tender mercies of the charlatan, leaves to its victims but few unsipped dregs in the cup of bitterness. And yet under skillful treatment how managable the disease ; how beautiful the effects of remedies! We have but few specifics in medicines, but among these are two potent adversaries of this dreadful scourge, which in skillful hands disarm it of its terrors. It may be stated dogmatically, that syphilitic iritis is always the result of untreated or badly treated syphilis. The train of symptoms following or accompanying indurated chancre (the first manifestation of syphilitic intoxication), such as indurated, inguinal, cervical and epitroclear, ganglia, roseola, alopecia, plaques muceuse, are in ninety-nine cases in a hundred perfectly controllable by the iodide of mercury, which if properly administered for two or three months, disappear entirely, and the specific iritis, one of the late secondary symptoms, is never observed when this plan is followed, and the patient is safe from the tertiary forms of the disease.

The result of our interrogatories to patients affected with syphilitic iritis has been mainly as follows: In more than half the primary syphilitic manifestation or chancre had been cauterized by some one, either physician or layman. About one-half of this series had been afterwards placed under other treatment; of the remaining cases the larger portion had had no treatment whatever, and a few, although presenting unequivocal syphilitic accompaniaments to their iritis, ignored the primary infection entirely. The treatment usually consisted in the administration of the contents of a bottle, and in some few instances of pills, neither medicine being kept up on an average more than two weeks. Concerning the active principle of the ingredients of the bottle we can have but little doubt, mercury is generally administered in pills, and the bottle we suppose contained iodide of potash. Why will physicians, aye, and intelligent men, continue to use this remedy in the secondary form of the disease. Did they ever see good result from it? Oh, yes, exclaim a chorus of voices, we have seen the symptoms disappear under it! And did you never see them pass away without any treatment, and under every treatment? We most certainly have; but alas only to return in the tertiary form with three-fold vigor. Lose no valuable time administering iodide of potash, sarsaparilla, and flattery to your patient, in *secondary* syphilis, or you do him a wrong and bring a valuable remedy into disrepute. If mercury is given, and it should be, let it be given for two, three or four months, small doses if you wish, but carefully kept up. Then we shall have no more late secondary symptoms, such as iritis; no more transition symptoms, such as some of the skin affections, and our bones will be free from eminences other than those which nature intended for useful purposes. We lay more stress on the proper treatment of the whole constitutional affection than upon one trifling manifestation—iritis. To treat the last well, the first should be recognized; then is there no difficulty; that which cures the enlarged ganglia, the alopecia, and the sore mouth in the earlier stages of the disease, will cure the iritis later. All that is necessary to say about the affection may be said in a few words; dilate the pupil, and keep it dilated while your patient takes mercury—not with a view to make his mouth sore, that is not necessary, but as Ricord gives it, plenty of it, but carefully guarding against this unpleasant effect. We usually use the iodide of mercury, one grain, one, two or three times a day, in the Ricord pill; there are few cases of syphilitic iritis which will not disappear in ten days under this plan. Blisters to temple may be added, although we dispense with them as often as use them.

Simple iritis, when seen early, yields easily and readily to the frequent instillation into the eye of a solution of atropine. Graefe uses it every twenty minutes, and our experience with it has been very satisfactory. It is not advised to abandon other remedial agents, but we believe it sufficient, if properly used, to effect a cure in nearly all cases when seen in the early stages.

(To be continued.)

A CASE OF RECURRENT ENCEPHALOID,

DISEASE OF THE EYE-BALL WITH SECONDARY DEPOSITS.

By Charles Browning, F. R. C. S. L.

David John Hart was born July 5th, 1856, and died March 1st, 1859, at the age of two years and eight months.

At birth he was a remarkably fine boy, but in a few days some peculiarity, with slight strabismus of the right eye, was observed, together with enlargement of the globe. During this period, and subsequently, he showed unusual irritability, and cried much by day and by night.

When two months old he had an attack of diarrhœa. The eye now attracted my particular notice; the tunics were vascular, as were also the deep seated parts, seen through the pupil; there was dullness of expression and a want of harmony in the appearance and action of the eyes. Scarcely had two months more elapsed when diarrhœa returned, complicated with dentition. This, as well as the former attack, yielded to small doses of hyd. cum. cretâ, with sodæ carb. and mist. cret. with tinct. opii.

The complaint of the eye had progressed, as was indicated by more decided fullness, redness and increased irritability of the child. Still he was so far benefited by the medicines prescribed for the diarrhœa that the eye underwent a corresponding favorable change; it somewhat decreased in size, and its actions were more in unison with hose of its fellow.

Thus matters went on without any material change until the beginning of October, 1857, when the patient was brought to bed. In addition to the symptoms which have already been detailed, he had those which indicated a more acute form of ophthalmia, for which leeches, blisters, mercurials, etc., were used with success, so far as related to the inflammatory condition of the parts. Tinct. iodini, c. and hyd. cretâ were then taken for a month. The general health improved, the eye returned to its former state, and medicines were discontinued—not, however, without serious misgivings that there was incipient malignant disease, which time would develop.

The complaint very slowly progressed during the next eight months, gradually impairing vision, until at length it was completely destroyed. Whatever the character of the disease, whether malignant or scrofulous, as far as the eye was functionally concerned, it was useless—nay, worse, it was evidently the source of mischief to the whole system, and, unless the cause could be removed by surgical success, it was but too apparent that the child must, sooner or later, sink.

Having expressed these views to the parents, it was decided to consult Dr. Haynes Walton, who coincided with me in the opinion that, although the result of extirpating the eye was uncertain, it was the only thing likely to do good. There were no unequivocal signs of malignancy; the disease might be scrofulous degeneration, or, if fungoid in its nature, it might be confined to the eye-ball. Under either supposition, the operation was thought not only justifiable but expedient; consequently, on August 4th, 1858, I removed the eye with as much of its posterior attachments as possible, taking care to divide the optic nerve close to the foramen opticum. Upon examining the eye there were no morbid appearances external to its tunics, except that the optic nerve was somewhat larger than natural, and of a yellowish brown color. The vitreous humor was turbid and opaque, and so mixed up with the other disintegrated structures as to render it impossible to determine the part in which the complaint had originated.

The microscopic appearances were adverse to a favorable prognosis, and entirely dissipated the hopes which might otherwise have been entertained of a perfect cure. A small portion of fluid was taken from the divided nerve and placed upon the field of the microscope; cancer cells, containing nuclei and nucleoli, were detected—a revelation which rendered it but too probable that, the division having passed the orbital boundary, had extended to the brain. This guarded prognosis was impressed upon the minds of the child's friends, which, however, for a time, seemed belied by the progress of the case—for, on the very night after the operation, the child slept well, and the following day he was amusing himself with his toys, as if in health.

He left town for Lowestoff in a fortnight, and, during the first nine or ten weeks of his stay by the sea, he continued to improve in health and strength. This happy change, however, was of short duration. Granulation began to protrude beyond the eye lids, portending mischief. Argenti nitras was applied without avail, and, by the end of October the patient was brought home and again placed under my care.

It was but too evident that he had a recurrence of the disease in all its malignancy. Nothing checked its growth; the granulations rapidly increased, filling the orbit, and, by this outward direction, giving rise to great distension of the lid, which became much attenuated and presented a highly vascular, hard, shining surface. The tumor, not of a globular shape, spread equally upon the surrounding parts, extending from the eye brow to a little below the level of the ala nasi, measuring ten inches in circumference, extremely sensitive, and at times discharging a copious, offensive sanies.

As the disease advanced the tumor varied; it became yellow, dusky and soft. Repeated hemorrhages took place to the extent of from a quart to a half pint. These, combined with loss of appetite, pain and broken rest, soon undermined the vital powers, and emaciation became extreme. For a fortnight he took nothing but porter, of which he drank a quart every twenty-four hours. During the last week of his life he swallowed nothing.

Some few weeks before death a secondary tumor began to manifest itself in the antrum of the left os maxillare superius; as it grew it caused some protrusion of the eye and ectropion of the lower lid. The eye itself was unaffected; vision was perfect.

There is little to be said on the subject of the treatment of this deplorable case; it stands forth as one of the *opprobria medicice et chirurgice*, and solicits the aid of genius and research to elaborate a remedy for the benefit of future generations.

Anodynes were the only medicines from which temporary relief was obtained, and of these the liq. opii. sedat. was selected, which had the happy effect of mitigating pain and inducing sleep. Thus the path-way of death was soothed, and on the first of March the child, reduced to a skeleton, succumbed to this destructive disease.

Autopsy: The body was examined thirty-six hours after death; cadaveric rigidity gone; extreme emaciation; calvarium unusually adherent to dura mater; in overcoming these adhesions, bloody serum made its escape, apparently from the base of the brain. There were also peculiar sanguineous spots upon the external and internal surface of the calvarium, corresponding to the course of the lambdoidal and sagittal sutures; some of these spots were circular, and surrounded by a fine, hard, granular deposit. On raising the right anterior lobe of the cerebrum an encephaloid tumor, as large as an egg, and inverted by a delicate pseudo-cyst, presented itself. It rested upon the orbitar plate of the os frontis, and the cerebral substance surrounding the cyst was softened, as well as the bone on which the tumor lay. There was no trace of the olfactory and optic nerve on this side, but the left optic and the nerves given off from the base of the brain were healthy. Ventricles, base and spinal cord normal. Right orbit filled with the tumor continuous with the encephaloid mass within the skull. Bones of the orbit more or less carious. Left eye and appendages sound—the former protruded by the growth in the antrum. Thoracic and abdominal viscera, with the glandular structures, healthy. Many encephaloid deposits were found under the periosteum of the ribs and sternum. Indeed, in some instances, the very osseous structure itself was infiltrated with analogous deposits.

There is much reason to believe that the patient derived an hereditary taint from his maternal grandfather, who, many years ago, suffered from lupus, which destroyed part of the nose; the ulceration was arrested, and the man is now alive and healthy.

A first cousin of the child's mother died from cancer of the tongue, and a sister of phthisis. It should also be mentioned that the mother had an attack of uterine hemorrhage about the third month of pregnancy, accompanied by much constitutional derangement, a circumstance which, perhaps, by leading to perverted nutrition, or cell formation, might have had some share in forming the abnormal growth.

Remarks: In the encephaloid form of cancerous disease, especially, no permanent benefit, as a rule, may be expected from surgical aid; yet, inasmuch as cases are on record which were cured by extirpation, it is not altogether Utopian to hope that an exceptional case to the general law may occur to justify the use of the knife. Admitting, however, on the other hand, that it is a blood disease, and for the most part diffused throughout the corporeal organism, we must look to rational medicine—to alteratives, tonics and aliments for a remedy.

Nor would it be philosophic to rest satisfied with the amount of knowledge we already possess, or to be discouraged by the little success that has attended the researches of pathologists in this department. Rather let the scanty gleanings act as a stimulus to deeper investigation; and who can say that the laborer shall not be rewarded by the discovery of an agent antagonistic to the development of cancer cell? This inquiry may meet with some encouragement, from the fact that the plasma and blood-corpuscles are influenced and acted upon in a marvellous way by the ingesta, as demonstrated by Dr. W. Addison, from which it is not unreasonable to infer that in the wide range of therapeutic agents one may yet be discovered which shall throw new light upon this interesting and important subject.

REMOVAL OF TAPE-WORM.

Messrs. Editors—During the past season, while engaged in my professional duties, in New Orleans, a most highly interesting case of *tœnia* came under my observation, which I feel it my duty to report, as almost anything of a practical character, on this subject, is of more or less interest to the profession. The patient, Mrs. D., had been under regular treatment for a number of months, with the unmistakable symptoms of tape-worm during that time.

The most popular and common remedies had been perseveringly employed with very partial success, only some three or four feet of the *parasite* having passed away in small portions, from time to time.

The remedy which, at least in the estimation of the patient and her friends, had the credit of producing the desired effect, was *the bark of the pomegranate root.*

The lady was advised to make a strong *ptisan* of this bark, and to use it freely for twenty-four hours, which she did with promptness, having taken, perhaps, a quart or more during that period. This was followed with a liberal dose of castor oil and turpentine, upon the operation of which about twenty-one feet of the worm was expelled, greatly to the satisfaction and relief of the patient, who has continued quite well and entirely free from the symptoms of *tœnia* since that time.

It would be hardly fair in this instance to attribute the expulsion of the worm to the direct agency of the oil and turpentine, as this remedy had often been tried previously, and as often (when used alone) had failed. I have the specimen, which is a beautiful one, in my collection.

The pomegranate, which is a very handsome tree, and quite ornamental, can be cultivated to great advantage in this climate. I have a beautiful specimen of it now growing in my flower garden. J. S. HARRISON.

CHAMPAGNOLLE, ARK., May 20, 1859.

SPECIAL SELECTIONS.

CONVENTION OF MEDICAL TEACHERS.

MORNING SESSION.

At a meeting of the last National Medical Convention, held in Washington City, it was resolved that there should be a National Convention of the Teachers from the Medical Colleges in the United States, and that they should meet in the city of Louisville, Ky., the day before the meeting of the National Medical Convention. In accordance with this resolution, they met on Monday morning, May 2, 1859, at Mozart Hall.

After prayer, by Rev. J. H. Heywood, Dr. Dixi Crosby, Professor of Surgery in Dartmouth College, N. H., was called to the chair, and Dr. George C. Blackman, of Ohio, appointed Secretary.

Dr. Crosby returned his thanks to the convention in a neat and appropriate speech.

Dr. D. F. Wright offered the following resolution :

Resolved, That all members of the Faculties of Medical Colleges, now present, shall be considered members of this convention ; but that when more than one from the same College is present, but one of them shall cast the vote of that institution.

A substitute was offered by Dr. Baker, of Ohio, that a committee of three, on credentials, be appointed by the chair. This substitute for the original resolution was then carried, and the chair appointed the following gentlemen to serve on that committee: Dr. Shattuck, from Massachusetts, Dr. Haskins, from Tennessee, and Dr. Baker, from Ohio.

The convention then adjourned for thirty minutes, to allow the committee on credentials time to report. At the expiration of the time the committee reported the following Colleges as represented, with the gentlemen as delegates:

Dartmouth College, N. H.—Prof. Dixi Crosby.

Shelby Medical College, Tenn.—Profs. E. B. Haskins and D. F. Wright.

Missouri Medical College.—Prof. J. H. McDowell.

St. Louis Medical College.—Prof. N. L. Linton.

Medical College of South Carolina.—Prof. H. R. Frost.

Medical College of Georgia, Augusta.—Prof. H. F. Campbell.

Medical Department of the University of Michigan.—Prof. Moses Gunn.

University of Louisville, Medical Department.—L. P. Yandell and L. Powell.

Cincinnati College of Medicine and Surgery.—Prof. H. Baker.

Jefferson Medical College, Philadelphia.—Profs. Robley Dunglison and Franklin Bache.

Lind University of Chicago.—Prof. N. S. Davis.

Oglethorpe Medical College, Georgia.—Prof. A. G. Thomas.

Medical College of Ohio.—Prof. Geo. C. Blackman.

Kentucky School of Medicine.—Profs. M. Goldsmith and Geo. W. Bayless.

Iowa University.—Prof. McGugin.

Medical College of Memphis.—Prof. H. R. Robards.

Medical College of Virginia, Richmond.—Profs. B. R. Welford and L. S. Joynes.

Atlanta Medical College, Georgia.—Profs. J. G. Westmoreland and John W. Jones.

Medical Faculty of Harvard University, at Boston.—Prof. Geo. C. Shattuck.

Rush Medical College, Chicago, Ills.—Prof. Daniel Brainard, and Joseph W. Freer.

Western Reserve Medical College, Cleveland Ohio.—Prof. G. C. C. Weber.

On motion, the report was received and the committee allowed to report further the names of delegates during the day.

The next business in order was the election of officers for the permanent organization of the convention.

On motion, the officers of the preliminary meeting were declared elected.

Prof. Crosby, in taking his seat as President, said the convention derived one advantage from the reëlection of the present officers, as they were spared being inflicted with additional speeches of thanks. He concluded by saying that, unless changed by the convention, he had the authority to make rules for conducting business. He, therefore, ruled that no member shall speak longer than ten minutes, nor more than twice on the same subject.

A motion was offered by Dr. D. F. Wright, of Tenn., allowing all persons present, from the different Medical Colleges, to sit as members of this convention. This was amended by Dr. Davis, of Chicago, by adding that no College should be allowed more than one vote on any proposition. This was carried.

Dr. Davis, of Ills., offered a resolution, authorizing the appointment of a committee of five, as a business committee. This being carried, the President appointed the following gentlemen: Drs. Davis, of Ills.; Gunn, of Michigan; Frost, of S. C.; Shattuck, of Mass.; and Yandell, of Louisville, Ky.

The convention then adjourned for thirty minutes, to allow the committee time to prepare business.

At the expiration of the time, the committee reported six resolutions, which were accepted from the committee, and were, on motion, brought up in order. The following are the resolutions:

Resolved, That this convention recognize the great advantages to be derived from the action of the American Medical Association in prescribing the terms and conditions on which medical degrees shall be conferred and licenses to practice medicine shall be granted, and that any expression of opinion as to methods or periods of instruction from the American Medical Association should be received with deference and respect, and that all pains should be taken to enforce any rules or regulations recommended by that body.

Resolved, That this convention earnestly recommends the American Medical Association to adopt such measures as will secure the efficient practical enforcement of the standard of the preliminary education, adopted at its organization in May, 1847, and that the Medical Colleges will cheerfully receive and record the certificates alluded to in said standard, whenever the profession, generally, and the preceptors, will see that students are properly supplied with them.

Resolved, That no Medical College should allow any term of practice to be a substitute for one course of lectures in he requisitions for graduation.

Resolved, That hospital clinical instruction constitutes a necessary part of medical education, and that every candidate for the degree of Doctor of Medicine should be required to have attended such instruction regularly for a period of not less than *five months*, during the last year of his period of pupilage.

Resolved, That every Medical College should rigidly enforce the rule requiring three full years of medical study before graduation, and that the diploma of no Medical College shall be recognized which is known to violate this rule.

The first resolution created some degree of excitement, and provoked considerable debate, when the convention adjourned until three o'clock.

AFTERNOON SESSION.

The debate still continued on the first resolution, as reported in the forenoon. Dr. Bayless, who had the floor at the time of adjournment, offered the following amendments: to substitute, in the fourth line, the word "recommended" for "prescribe," and all after the words "deference and respect" be stricken out.

The debate on this resolution still continued warm, most of the gentlemen participating, when Dr. Joynes offered the following as a substitute:

Whereas, It appears that a large portion of the Medical Colleges of the United States are unrepresented in this convention, that no changes in the present system of education can be effected unless adopted by the schools generally.

Resolved, That it is inexpedient at this time to take any action upon the propositions contained in the report presented by the Special Committee on Medical Education at the last meeting of the American Medical Association.

Resolved, That with the view of obtaining a more general union in counsel and action upon this important subject, this convention do now adjourn, to meet again on the day preceding the next annual meeting of the Medical Association, and at the place which may be agreed upon for such meeting, and that the several Medical Colleges in the United States be requested to appoint each a delegate to such adjourned meeting of this convention.

An amendment was offered by Dr. Wright, by adding another resolution to the effect that a committee be appointed to examine the different propositions offered. The vote of the College being called on this resolution, the vote stood ten for the substitute and nine against it.

The following gentlemen were appointed by the chair to serve on that committee: Dr. L. P. Yandell, of Louisville; Dr. G. Shattuck, of Massachusetts; Dr. G. C. Blackman, of Ohio; Dr. H. F. Campbell, of Georgia; Dr. M. Gunn, of Michigan.

The meeting was then adjourned.

TWELFTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

Louisville, May 3, 1859.

The Association convened in Mozart Hall, at 11 o'clock, A. M., and was called to order by the President, Dr. Harvey Lindsly, in the chair, supported by Vice Presidents Drs. W. L. Sutton and T. O. Edwards. The other officers present were the Secretaries, Drs. A. J. Semmes and S. M. Bemiss, and Treasurer Caspar Wister.

The President introduced Rev. Stewart Robinson, of Louisville, who opened the proceedings with prayer.

The chair then declared the Association duly organized, and announced as first in order of business the report of the Committee of Arrangement.

Dr. R. J. Breckinridge, chairman of the committee, reported as follows:

Mr. President and Gentlemen of the Association: It is my grateful office to greet you on this, your Twelfth Anniversary, and tender you a hearty welcome to the city of Louisville. I do this, sir, in behalf of the physicians and citizens generally—citizens, second to none in their intelligent appreciation of the honor and dignity of the profession, and the worthiness and usefulness of its members—physicians, second to none in their devotion to the great work in which they are engaged.

We have watched, sir, with interest the formation and progress of this Association. We have noted, with equal gratification, the catholicity of its spirit, and the greatness of its designs. We have seen it, in its brief existence, gather into its fold thousands of members—members from every State of the Republic, and without possessing real legislative powers, exercise a most potent influence for good.

Formed for the advancement of science and art—for the gathering, interchange, and diffusion of knowledge—for the promotion of fellowship and harmony in the profession, by drawing closer and closer its members, it has *not* wholly failed in the accomplishment of its aims; and we trust for it a future yet more fruitful—harvests yet more abundant.

Feeling that "it is good for us to be here"—approving, thoroughly, cordially, the objects of the Association—and believing in its capacity for usefulness—we bid you God speed in your labors, while we heartily welcome you, as honored guests, to our homes.

Dr. J. B. Flint, chairman of a committee appointed by the State Medical Society of Kentucky, to receive the American Medical Association, accompanied by Drs. W. L. Sutton, C. H. Spilman, W. S. Chipley and W. C. Snead, came forward and addressed the Association as follows:

Mr. President: At a late annual meeting of the "State Medical Society of Kentucky" the following resolution was unanimously adopted, and the gentlemen before you, all of them ex-Presidents of the Society, constituted a committee charged with carrying it into effect:

Resolved, That J. B. Flint, with such associates as he may select, be a committee to wait upon the American Medical Association, so soon as it shall have opened its session in Louisville, and in behalf of this Society, bid it welcome to the medical jurisdiction of Kentucky, assure it of the cordial interest of the profession of the State in the objects and purposes of its institution, and of the readiness of this Society to coöperate in all its endeavors to promote the honor and usefulness of our common calling.

In regard to assurances of welcome, Mr. President, so far as they apply to yourself and your associates, as individual guests of your Kentucky brethren, those gentlemen would hardly pardon me for adding a word to the general terms of the resolution. Already, if I mistake not, there are demonstrations of the spirit of hospitality, which render any assurance on that subject worse than superfluous. But I am happy to assure you, Mr. President, that the Asssociation over which you preside, in its corporate capacity, with its well known purposes and ends, will find an equally cordial reception in the generous community which it has honored with its presence. The people of Kentucky, sir, are generally prepared to appreciate, as it deserves, every enterprise of a public spirited or philanthropic character which presents itself to their notice, and I think I may say especially disposed to befriend the cause of medical education. They have certainly done somewhat, not a little, to their credit in evidence of their intelligent interest in medical science and the best means of its advancement. Through the munificence of the State, in one case, and of the liberal city of Louisville in the other, two medical libraries have been procured in Kentucky, each of which is superior to any and all the public collections of medical books that can be found in most of the other States of the Union. Not more than two of our sister States, so far as I can learn, can be compared with us in this interesting particular.

One of those libraries, belonging to the Medical Department of the University of Louisville, at its best estate, numbering 4,000 volumes, you will doubtless visit during your sojourn among us, and, although much defaced and mutilated by the conflagration which laid that institution in ruins two years ago, you will still find it to be a large and choice collection—adequate to the requisitions of medical research, and presenting satisfactorily the course of medical literature from the time of Hippocrates to the present day.

The other library to which I refer belongs to the Medical Department of Transylvania University, and contains 8,000 volumes. I hope that not a few of the members of the Association, before leaving Kentucky, will find their way into that also, in the course of a visit to the beautiful inland city in which it is located—a city distinguished throughout the land for the general intelligence and refinement of its population, as well as for the eminent public men who have signalized it as their home; but to medical men, not only of our own, but of foreign countries, especially memorable as the residence of the great lithotomist of our day and and surgical patriarch of the West—Benjamin W. Dudley.

Such benefactions as these to the means of medical study attest, as I have already intimated, so enlightened an interest in the improvement of our profession as to guaranty not only a welcome to the Association which represents it, but efficient coöperation in its endeavors on the part of the profession and the people of Kentucky.

May your present session, Mr. President, be an agreeable one to the members of the Association, and prove eminently beneficial to the interests of American medicine.

The Secretary then called the roll.

The President now announced a recess of fifteen minutes, to enable the various State delegations to choose their members for the committee on nominations.

Upon call to order the following members were reported as the Nominating Committee:

New Hampshire, Dixi Crosby; Massachusetts, Solomon D. Townsend; Rhode Island, J. H. Eldridge; New York, D. M. Reese; New Jersey, A. N. Dougherty; Pennsylvania, R. K. Smith; Delaware, H. F. Askew; Maryland, G. W. Lawrence; District of Columbia, Cornelius Boyle; Virginia, L. S. Joynes; North Carolina, Edward Warren, Jun.; South Carolina, J. M. Gaston; Georgia, John W. Jones; Alabama, J. B. Coons; Louisiana, S. O. Scruggs; Tennessee, E. B. Haskins; Kentucky, D. D. Thomson; Ohio, George Fries; Indiana, J. H. Brower; Michigan, William Brodie; Illinois, C. Goodbrake; Missouri, M. L. Linton; Iowa, D. L. McGugin; Wisconsin, C. B. Chapman; Army, Charles S. Tripler.

The President then appointed the following committee on voluntary essays: Drs. L. P. Yandell, of Kentucky, Jas. Bryan, of Philadelphia, and C. G. Comegys, of Ohio.

Dr. R. J. Breckinridge, from the Committee of Arrangements, announced the hours of business from 9, A. M., to 1, P. M., and from 3, P. M., until such hour as the Convention should adjourn upon resolution.

Dr. Harvey Lindsly, the President of the Association, then read his retiring address, which was listened to with marked attention, and was an eloquent tribute to the dignity of the medical profession and the importance of its improvements.

Dr. L. A. Smith, of New Jersey, moved that the thanks of the Association be tendered to the President for his able and eloquent address, and it was ordered to be placed in the hands of the appropriate committee for publication, among the proceedings of the meeting.

Dr. Caspar Wister, chairman of the Committee of Publication, read the annual report, and on motion of Dr. Sayre, of New York, the following resolutions appended to it were adopted:

Resolved, That hereafter every paper intended for publication in the Transactions must not only be placed in the hands of the Committee of Publication by the first of June, but it must also be so prepared as to require no material alteration or addition at the hands of the author.

Resolved, That authors of papers be required to return their proofs within two weeks after their reception, otherwise they will be passed over and omitted from the volume.

Adjourned until 3 o'clock, P. M.

AFTERNOON SESSION, 3 O'CLOCK.

Dr. W. L. Sutton, one of the Vice Presidents, took the chair, in the absence of the President.

Dr. D. Meredith Reese, of New York, chairman of the Committee on Nominations, reported the following officers for the ensuing year:

President—Henry Miller, of Kentucky.

Vice Presidents—H. F. Askew, Delaware; Chas. F. Tripler, U. S. Army; L. A. Smith, New Jersey; Calvin West, Indiana.

Treasurer—Caspar Wister, Pennsylvania.

Secretary—S. M. Bemiss, Kentucky.

Dr. Sayre moved the adoption of the report, which was unanimously agreed to.

Dr. Brainard, of Illinois, moved the appointment of a committee to conduct the newly appointed officers to their respective chairs. The acting President selected Drs. Brainard, of Illinois; Mattingly, of Kentucky; Sutton, of Indiana; McDowell, of Missouri; and R. J. Breckinridge, of Kentucky; and they accordingly performed the duties assigned to them.

The newly elected President, on taking the chair, addressed the convention in substance as follows:

Gentlemen of the American Medical Association: I am wholly at a loss to command language to express the deep sense of obligation put upon me by calling me to the presidency of your Association. It is an honor any man may well be proud of, and although I admit, in all sincerity, that you might without difficulty have selected an individual more worthy the position, I may be allowed to say you could not have conferred it upon one who would prize it more highly or cherish it longer with the most grateful recollection. I do esteem it the greatest honor ever conferred upon me by the profession that I love, and to which I have devoted a long life; nay, more, it is the greatest honor that could be conferred upon any man by the medical or any other profession in this or any other country; for any decoration of honor or any mark of approbation conferred by a crowned head I should regard as a bauble in comparison. Who are you, gentlemen, when rightly considered? You are the rightful representatives of the great American Medical Profession—an army forty thousand strong, and a body of men, no matter what captious criticism may say in disparaging comparison with the European branch of the profession, in my humble judgment, far superior to the same number of medical men to be found in any quarter of the globe. Although, as a body, you may not be so learned, so critically and nicely framed in all the minutiæ of the profession, yet for strength, integrity, and precision in all the great principles guiding to a successful combat with disease, this body is equal, if not superior, to that of any kingdom of continental Europe.

To be called to the presidency of such a body of men, is, in my sober judgment, the greatest compliment that could be conferred on mortal man, provided that man is a devotee of medicine, who has given his whole mind, soul, heart, and strength individually to the profession, and has that high regard for it which will not suffer any less noble pursuit to interfere with the daily though laborious duties of the profession.

Coming, so recently, from a sick bed, and still enfeebled in health, I beg to be excused from further remarks, and desire you to accept this brief and imperfect acknowledgment of the distinguished honor conferred upon me, instead of what, under other circumstances, I might be disposed to say.

Dr. R. J. Breckinridge moved that the thanks of the

Association be tendered to the retiring officers for the faithful and assiduous manner in which they have conducted the business committed to their charge, which was unanimously adopted.

Several names were now offered as candidates for membership by invitation, when

Dr. T. O. Edwards moved that no person be admitted as a member by invitation unless his good standing in the profession be vouched for by some member of the Association, which was adopted.

Dr. Eve moved a reconsideration of the motion by Dr. Edwards, which was carried.

And upon motion of Dr. Edwards, all applications for membership by invitation were referred to the Committee of Arrangement and Credentials.

Dr. J. B. Lindsly, of Tennessee, offered the following:

Resolved, That a committee of three be appointed by the chair to inquire into and report upon the propriety of dividing the Association into sections for the purpose of performing such parts of its scientific labors as may relate to particular branches of medicine and surgery.

Dr. Brodie moved its reference to the Nominating Committee.

Dr. Brainard explained at some length the object of the resolution of inquiry, and urged its adoption as the means of giving more effect and usefulness to the proceedings of the Association, the reports of which had hitherto gone out unmatured, in consequence of the want of concentrated action.

A motion by Dr. Sayre to lay the motion on the table was negatived, and the motion of Dr. Lindsly was then adopted.

The chair appointed as the committee, Dr. Lindsly, of Tennessee, Dr. Brainard, of Illinois, Dr. G. C. Blackman, of Ohio.

Dr. Davis moved that no person be permitted to speak more than twice on the same subject, or more than ten minutes at one time, except by consent of the Association, which was adopted.

The Committee on Prize Essays was called, but the chairman being temporarily absent, was postponed.

The Committee on Medical Education failed to report.

The Committee on Medical Literature failed to report.

A letter from Dr. J. G. F. Holston, of Ohio, chairman of the Special Committee on the Microscope, was read, reported progress and begging a continuance for more extended investigation, which was referred to the Committee on Nominations.

A letter from Dr. Stephen Smith, of New York, from the Special Committee on Medical Jurisprudence, had the same reference.

The Special Committee on Quarantine was not ready to report.

Dr. Mattingly, of Kentucky, from the Special Committee on Diseases and Mortality of Boarding Schools, asked a continuance until next year, in order to obtain further information requisite to the full investigation of the important subject. The request was referred to the Committee on Nominations.

The Special Committee on Surgical Operations for the relief of defective vision, on milk sickness, and on the blood corpuscle, had the same reference.

The following report from the Committee on Medical Ethics was read, and such portion of it as related to the action of the Dubuque Medical Society, in the case of an expelled member, was, on motion of Dr. T. O. Edwards, made the special order for 12, M., to-morrow.

To the American Medical Association: The Committee on Medical Ethics beg leave to state that, of the subjects referred to them at the last meeting of the Association, they find the following notice in the minutes:

"Dr. Grant, of New Jersey, presented a complaint made by the Newark Medical Society against the New York Medical College, for a violation of the ethics of the profession. Dr. Edwards, of Iowa, presented a similar complaint; and Dr. Oakley, of New Jersey, a complaint from the Union and Essex County Medical Society."

[Transactions, Vol. XI, p. 41.

Upon these several complaints your Committee beg leave most respectively to report:

That the two complaints from the Medical Societies of New Jersey refer only to one and the same grievance, the particulars of which are set forth in a memorial which was presented to the American Medical Association on the 6th of May, 1858, and which is entitled, "Statement of the Newark Medical Association in Reference to a Diploma granted by the New York Medical College."

The facts stated in the memorial which is now appended to this report, were, during the last annual meeting of the American Medical Association, examined as carefully as time and opportunity would allow. The charges therein contained against the New York Medical College were admitted to be true by Dr. Horace Green, President of said College, who, in apology for the same, submitted a written statement to your Committee, which was at the time accepted as satisfactory by the gentlemen then present before your Committee, on behalf of the parties aggrieved; and being afterwards presented with a verbal report, by the Committee, was received and entered upon the minutes in the following terms:

"Whereas, it appears, from undoubted testimony, that the New York Medical College have conferred the degree of Doctor of Medicine upon a notorious quack of the name of John F. Dunker, of Newark, the Faculty, in the person of the President of said College, wish here to declare, that the degree was obtained under gross deception and false testimonials furnished by said Dunker and his friends; and they therefore revoke and annul his diploma, and declare said Dunker to be unworthy of patronage or support from authority conferred upon him by this diploma."

[Transactions, Vol. XI., p —.

These complaints being thus disposed of, your Committee have only to add in reference to them that the memorial presented to the American Medical Association, from the Newark Medical Association, is worthy of special notice, as setting forth the negligent manner in which mere verbal and hearsay statements are at times accepted in place of authentic written testimonials, from individuals presenting themselves as candidates for the honors of our profession at some of the Medical Colleges of this country. In this respect there is reason to believe that the New York Medical College does not stand alone; and the publication of the accompanying memorial may be of service in putting a permanent check to this crying evil.

The only other complaint referred to your Committee was that presented by Dr. Edwards, of Iowa, preferring a charge from the Dubuque Medical Society against one of her members, who had been expelled for an alleged infraction of the code of medical ethics. This complaint does not appear to be of such a character as to require adjudication here. It has since the last annual meeting of the American Medical Association been adjudged by the Iowa State Medical Society, (see transactions of the annual meeting of said Society, published at Dubuque, Iowa, 1858), and having been then settled in the State in which the parties reside, it should now be dismissed.

All of which is respectfully submitted.

JOHN WATSON, M. D., Chairman.

NEW YORK, April 28, 1859.

Continuances were asked by the Committees on the Pons Varolii, Medulla Oblongata, and Spinal Marrow—their Pathology and Therapeutics; on American Medical Necrology; on the Hygienic relations of Air, Food, and Water, the Natural and Artificial causes of their impurity, and the best methods by which they can be made most effectually to contribute to the Public Health; on the effect of the Virus of Rattlesnakes, etc., when introduced into the system of the Mammalia; on the Climate of the Pacific Coast, and its Modifying Influences upon Inflammatory Action and Diseases Generally; on the Constitutional Origin of Local Diseases, and the Local Origin of Constitutional Diseases; on the Physiological Effects of the Hydro Carbons; on Epilepsy; on the Causes of the Impulse of the Heart, and the Agencies which influence it in Health and Disease; and on the best substitute for Cinchona, and its Preparations in the Treatment of Intermittent Fever, etc; all of which were referred to the Committee on Nominations.

The Special Committee on Government Meteorological Reports made a report, written by Dr. R. H. Coolidge, of the U. S. Army, but read by Dr. Paul F. Eve, of Tennessee, which was referred to the Committee on Publication.

The Committee, appointed in May, 1857, on Criminal Abortion, submitted a report, written by Dr. Storer, of Boston, which was read by Dr. Blatchford, of New York, and referred to the Committee on Publication. The following resolutions, appended to this report, were unanimously adopted:

Resolved, That while physicians have long been united in condemning the act producing abortion, at every period of gestation, except as necessary for preserving the life of either mother or child, it has become the duty of this Association, in view of the prevalence and increasing frequency of the crime, publicly to enter an earnest and solemn protest against such unwarrantable destruction of human life.

Resolved, That in pursuance of the grand and noble calling we profess—the saving of human lives—and of the sacred responsibilities thereby devolving upon us, the Association present this subject to the attention of the several Legislative Assemblies of the Union, with the prayer that the laws by which the crime of procuring abortion is attempted to be controlled may be revised, and that such other action may be taken in the premises as they in their wisdom may deem necessary.

Resolved, That the Association request the zealous co-operation of the various State Medical Societies in pressing the subject upon the Legislatures of their respective States, and that the President and Secretaries of the Association are hereby authorized to carry out by memorial these resotions.

The Convention then adjourned till to-morrow morning, at 9 o'clock.

SECOND DAY.

WEDNESDAY, May 4th, 1859.

The President, Dr. Miller, called the Association to order at 9 o'clock.

Dr. D. Meridith Reese, chairman of the Committee on Nomination, called attention to the fact that the committee could not act definitely until the place for next year's meeting should be designated. He stated also, that the Medical State Society of Connecticut, had requested that an amendment to the constitution proposed two years since, should be taken from the table, relative to the time of meeting.

It was moved by Dr. Blatchford, and seconded by Dr. Sayre, that the amendment to the third article of the constitution be taken up, which proposes to add after the words "first Tuesday of May," the words "or first Tuesday of June," and after the words "shall be determined," add the words "with the time of meeting."

The amendment was adopted by a constitutional vote.

Dr. D. M. Reese also stated that the Connecticut State Society had extended a pressing invitation to the Association to hold its next meeting at New Haven, which invitation was referred to the Committee on Nominations.

Dr. Reese also called attention to the necessity of some radical change in the mode of appointing committees to prepare treatises on scientific subjects to be reported at the annual meetings. It had been seen, that on yesterday, a large majority of the committees made no reports, and did not even see proper to send in any communication explanatory of delay. The difficulty heretofore has originated in the mode of selection adopted by the nominating committee. It has been customary for gentlemen to hand in their names and the proposed subjects, on slips of paper, and the committee without further investigation, have so published in the annual reports. Thus it has happened that appointments have been most injudiciously made, and gentlemen to whom a special duty has been assigned, have been found to know less of that than any other subject. We therefore hoped that no committee of last year would be reäppointed or continued, from which no report had been had and no communication received.

On motion, the Nominating Committee was unanimously instructed to act upon the suggestions of the chairman, who also stated, that there should be some definite expression of disapprobation as to the course of these gentlemen who had volunteered essays, and had their names reported in the newspapers and spread over the land, and then paid no attention to the matter.

Dr. Flint, from the Committee on Prize Essays, begged leave to report that they had received four dissertations in time for a careful and thorough examination, and two others, quite voluminous, only two days before the meeting of the Association. The latter we have felt constrained to exclude altogether from the competition of the present year on account of the absolute impossibility of reading them with a critical purpose and effect. The others have been carefully examined by all the surviving members of the committee—one estimable associate, Dr. Evans, having been called from all his earthly labors before the active duties of the committee began.

More than one of the four essays we examined exhibited much labor, and a commendable scholarship in their preparation—are volumnious, and in some respects very meritorious papers; but in the unanimous judgment of the committee neither of them possesses the degree and species of merit which should entitle its author to the Association prize.

The committee beg leave furthermore to report, that in their opinion and as the suggestion of their own recent experience, the Association should determine in more precise and formal manner than has yet been done, the terms and conditions of competition and of success in the contest for prizes, for the government alike of contestants and the committee of adjudication, and that a committee be now appointed to consider and report upon that subject.

Dr. Gordon, chairman of Committee on Etiology and Pathology of Cholera, made a partial report, and asked continuance of time.

On motion, the report was accepted, and referred to Committee on Publication, and petition for continuance referred to Nominating Committee.

Dr. J. B. Lindsly, chairman of the committee appointed to inquire into the propriety of dividing the Association into sections, for the better performance of its work in considering the various branches of medicine and surgery, recommended the adoption of such a plan as being indispensably necessary to making this body a working scientific association. They do not deem it necessary to enter into any argument in favor of this plan, it being the one already universally adopted by similar bodies. They would simply recommend, for the present, a division into the following sections, as being most suitable to facilitate the transaction of business, viz :

1. Anatomy and Physiology.
2. Chemistry and Materia Medica.
3. Practical Medicine and Obstetrics.
4. Surgery.

The committee do not propose that this subdivision of labor shall in any manner interfere with the regular business of the Association as now conducted; but only that after having assembled each day in general session, each section shall meet separately for the purpose of hearing and discussing papers on such subjects as properly belong to them, and they therefore recommend that the Committee of Arrangements for the ensuing year, be requested to provide suitable accommodations for the services of these sections, and that each of said sections shall be authorized to make such arrangements as may be required for the proper transaction of its business.

This report was considered and adopted after a very able speech in its support, by Dr. Davis.

Dr. J. W. Singleton, of Kentucky, moved the suspension of the rules for the introduction of the following:

Resolved, That in the death of Dr. A. Evans, of Kentucky, the Association has lost one of its most manly and efficient members, and society a friend and benefactor.

The resolution was unanimously adopted.

Dr. W. L. Sutton, under the resolution appointing a committee on registration of births, marriages, etc., proposed a plan of general action, an abstract of which he read on motion of Dr. Gibbs, of South Carolina, and on motion of Dr. L. P. Yandell, the subject was referred to a committee to report during the present session.

Drs. W. L. Sutton, J. B. Lindsly, R. W. Gibbs, Jr., James Bryan, Z. Pitcher and G. C. Shattuck, were appointed such committee.

A report from Dr. Thomas Logan, of California, on Medical Topography and Epidemics, was received, and referred to the Committee on Publication.

The chairman of the Committee on Voluntary Essays stated that he had received a paper on a case of extra-uterine fœtation from Dr. Enos Hoyt, of Transylvania, Mass., and another on a case of accidental poisoning by strychnine, from Dr. Douglas Bly, of Rochester, N. Y. He also presented a very voluminous paper entitled, "Observations on some of the changes of the Solids and Fluids in Malarial Fever, by Joseph Jones, Prof. of Medical Chemistry in the Medical College of Georgia, at Augusta."

By request, Prof. Jones gave a verbal abstract of his paper, and an exposition of his theory, and on motion of D. W. Yandell, the communication was referred to the Committee on Publication.

Dr. D. W. Yandell, announced that the following railroad companies had agreed to pass delegates to this convention over their roads at half price: Pittsburg, Fort Wayne and Chicago; Pennsylvania Central; Jeffersonville; New Albany and Salem; Louisville and Nashville, and Cleveland and Pittsburg.

On motion, a vote of thanks was tendered to these companies for their liberality.

Dr. J. B. Flint offered the following resolution:

Whereas, Our brethren of Great Britain are engaged in erecting a monument to the memory of John Hunter, whose invaluable services in behalf of Physiology and Surgery are recognized and honored, as well on this side of the Atlantic, as in Europe; and whereas, this Association, as the representatives of American Medicine, would rejoice in some suitable manner to participate in so grateful a testimonial of gratitude and respect; therefore

Resolved, That a committee of three be appointed, to consider in what manner this participation can best be effected, so as to be acceptable to our British brethren, and consistent with our own means and opportunities of action, with instructions to report at the next annual meeting.

The resolution was adopted, and Drs. Flint, Bowditch and Shattuck appointed as the committee.

Dr. Harvey Lindsly offered the following:

WHEREAS, Parliamentary rules of order are numerous, complicated, sometimes obscure, and often inapplicable to such a body as the American Medical Association, and whereas, from the nature of the pursuits of medical men, they cannot be familiar with these rules; therefore

Resolved, That a select committee of three members be appointed to prepare a system of rules for the government of this Association, as few in number, as concise, and as perspicuous as possible, to be reported at the next annual meeting.

This resolution was adopted, and Drs. H. Lindsly, C. G. Comegys and T. W. Blatchford appointed as a committee.

The paper of Dr. Bly, on Accidental Poisoning by Strychnine, was read by its author, and as individual cases are not reported in the Transactions (except as illustrations of principles) of the Association, thanks were returned for the communication, with a request that it be published in some medical journal.

The Nominating Committee made the following report:

The next annual meeting to take place at New Haven, on the first Tuesday of June, 1860. Dr. Eli Ives to be junior Secretary.

Committee of Arrangements—Drs. Charles Hooker, Stephen G. Hubbard and Benjamin Sullivan, Jr., with power to add to their numbers.

Committee on Prize Essays—Drs. Worthington Hooker, Conn.; G. C. Shattuck, Mass.; Usher Parsons, R. I.; P. A. Jewett, Conn.; and John Knight, Conn.

Committee on Publication—Drs. F. G. Smith and E. Wistar, Philadelphia, Pa.; S. M. Bemiss, Louisville, Ky.; E. Ives, New Haven, Conn.; Hollingsworth and Hartshorne, Philadelphia, Pa.; and Askew, Wilmington, Del.

Committee on Medical Literature—Drs. Henry Campbell, Ga.; D. F. Wright, Tenn.; G. Wendell Holmes, Mass.; S G. Armor, Ohio, and W. H. Byford, Ill.

Committee on Medical Education—Drs. D. M. Reese, New York; W. K. Bowling, Tenn.; Chas. Fishback, Ind., John Bell, Penn.; Z. Pitcher, Mich.

The following special committees were appointed:

On Morbus, Coxarius, and Surgical Pathology of Articular Inflammation—Dr. Lewis A. Sayre, of New York.

On the Surgical Treatment of Strictures of the Urethra—Dr. James Bryan, of Philadelphia.

On Drainage and Sewerage of Large Cities, their Influence on Public Health—Dr. A. J. Semmes, D. C., chairman, Cornelius Boyle and G. M. Dove.

On Puerperal Tetanus, its Statistics, Pathology and Treatment—Dr. D. L. McGugin, of Keokuk, Iowa.

On Hospital Epidemics—Dr. R. K. Smith, of Philadelphia.

On Puerperal Fever—Dr. S. N. Green, of Stilesville, Ind.

On Anœmia and Chlorosis—Dr. H. P. Ayres, of Fort Wayne, Ind.

On Veratrum Viride—Dr. James B. McCaw, of Richmond, Va.

On Alcohol, its Therapeutical Effects—Dr. J. W. Dunbar, of Baltimore, Md.

On Meteorology—Dr. J. G. Westmoreland, Atlanta, Ga.

On Milk Sickness—Dr. Robert Thompson, Columbus, Ohio.

On Manifestations of Disease of Nerve Centres—Dr. C. B. Chapman, Wisconsin.

On the Medical Topography of Iowa—Dr. T. O. Edwards, Iowa.

On Microscopic Observations on Cancer Cells—Dr. Geo. D. Norris, New Market, Ala.

On the Philosophy of Practical Medicine—Dr. Jas. Graham, Cincinnati, Ohio.

On Some of the Peculiarities of the North Pacific, and their Relations to Climate—Dr. Wm. H. Doughty, Ga.

The following Special Committees were continued, or altered:

On Microscope—John C. Dalton, Jr., N. Y.; David Hutchinson, Ind.; A. R. Stout, Cal.; Calvin Ellis, Mass.; Christopher Johnson, Md.

On Diseases and Mortality of Boarding Schools—Dr. C. Mattingly, Ky.; and Dixi Crosby, N. H.

On the Various Surgical Operations for the Relief of Defective Vision—Drs. M. A. Pallen, Mo.; T. J. Cogley, Ind., and W. Hunt, Penn.

On the Blood Corpuscle—Dr. A. Sager, Michigan.

On American Medical Necrology—Dr. C. C. Cox, Maryland.

On the Hygienic Relations of Air, Food and Water, the Natural and Artificial Causes of their impurity, and the best methods by which they can be made most effectually to contribute to the Public Health—Dr. C. C. Cox, Maryland.

On the Effect of Virus of Rattlesnake, etc., when introduced into the system of Mammalia—Dr. A. S. Payne, Virginia.

On the Climate of the Pacific Coast, and its Modifying Influences upon Inflammatory Action and diseases generally—Dr. O. Harvey, California.

On the Constitutional Origin of Local Diseases, and the Local Origin of Constitutional Diseases—Drs. W. H. McKee, of North Carolina, and C. F. Heywood, of New York.

On motion of Dr. Brodie, Dr. A. J. Semmes was requested to serve as Secretary pro tem. during the remainder of the session.

The Association took up the special order, being the report on Medical Ethics, to which had been referred the action of the Dubuque Medical Society, which, after debate, was laid over until 12 o'clock to-morrow.

On motion of Dr. H. F. Campbell, a section of meteorology, medical topography, and epidemic diseases, and of medical jurisprudence and hygiene was added to those already adopted by this Association.

The Association then proceeded to consider and act upon amendments to the constitution proposed at the last annual meeting and laid over under the rules. The following amendment was adopted:

Resolved, That the constitution of this Association be so amended as to provide, that no individual who shall be under sentence of expulsion or suspension from any State or Local Medical Society, of which he may have been a member, shall be received as a delegate to this body, or be allowed any of the privileges of a member, until he shall have been relieved from the said sentence by such State or Local Society.

The next amendment, lying over from last year, was the proposition of Dr. Kyle, of Ohio.

That the Constitution of the Association be so amended as to prohibit the admission as a delegate or the recognition as a member of any person who is not a graduate of some respectable medical college.

This amendment was rejected, but, on the question of reconsideration, a long and animated debate ensued. Without arriving at a vote, the Association adjourned for dinner.

The following gentlemen have been admitted to the Association as members by invitation :

Indiana—B. C. Bowan, N. D. Field, John S. Rowe, R. Curran, D. Wiley, J. A. Windle, A. V. Talbot, J. W. Davis.

Ohio—W. C. Hall, N. B. Davis.

Tennessee—J. M. Brannoch.

Kentucky—W. N. Gaither, S. B. Fields, W. S. Cain, J. A. Hodge, S. B. Merrifield, Joshua Gore, H. M. Berkeley.

Missouri—J. M. Allen.

Alabama—Dr. N. Bozeman, Dr. Turney.

New Hampshire—David Kay.

On motion, adjourned until 3, P. M.

AFTERNOON SESSION.

The Association was called to order at 3, P. M., Dr. M. F. Askew in the chair. The discussion on the amendment under consideration at the hour of adjournment was renewed.

Dr. Kincaid moved a further amendment to insert the word "hereafter" after "prohibiting."

The Chair ruled the amendment out of order at the present stage, or until the Association decides upon the question of reconsideration.

After a long discussion, Dr. Davis, of Indiana, moved to lay the motion to reconsider on the table, which was carried, 97 yeas, nays not counted, so the amendment stands registered.

The next proposed amendment to the constitution was that suggested by the New Jersey Medical Society, asking for such changes as would establish a Board of Censors in every judicial district of the Supreme Court, who should examine and grant diplomas to all proper members of the Association.

This was temporarily laid on the table for Dr. Crosby to offer a report of the Medical Teachers' Convention, which met on Monday last. He strongly recommended a committee from this body to confer with the Teachers' Committee, and felt great confidence that something beneficial to medical education would be the effect of such conference.

Dr. Comegys moved the appointment of a committee of five to confer with the Committee of Medical Teachers and report at the next annual meeting, provided that no Medical Teacher be selected on the part of this Association.

Dr. T. M. Blatchford, of New York, offered as a substitute the following preamble and resolution:

WHEREAS, Of all the subjects which can engage our attention in our associate capacity, that of Medical Education is paramount; and whereas, harmony of action is essential to success in establishing definite qualifications entitling to admission in our ranks; and whereas, nothing can be gained by hasty action in a matter so vital to our very existence, as a permanent Medical Institution. Therefore,

Resolved, That further action be suspended for the present upon the subject of the resolutions offered at the last meeting of the Association, by the chairman of the special committee on Medical Education, and that a committee, consisting of S. W. Butler, of Pennsylvania; L. A. Smith, of New Jersey; Dixi Crosby, of New Hampshire; C. A. Pope, of Missouri, and T. Buckler, of Maryland, shall be appointed to confer with the committee appointed at the meeting of Medical Teachers, to report some plan for action at the next meeting of the Association.

This amendment was lost, and the original resolution adopted.

The resolutions from the New Jersey Medical Society were then taken from the table and referred to the Committee of Conference.

Dr. Davis offered a resolution instructing the same committee to confer with the State Medical Societies for the purpose of procuring more decisive and uniform action throughout the profession in carrying into effect the standard of preliminary education adopted by this Association at its organization in 1847. This was carried.

Dr. Gibbes, from the committee to examine into a plan of uniform registration of Births, Marriages and Deaths, offered the following report:

They have given the same a careful consideration, and they unanimously recommend that the report be adopted and referred to the Committee on Publication.

They also recommend that the same committee be continued, with instructions to add to the report, in time for publication in the ensuing volume of Transactions, a form of registration law which may be likely to answer the requirements of the several States.

Dr. Sayre, of New York, offered the following:

WHEREAS, The medical profession at large have an interest in the character and qualifications of those who are to be admitted as their associates in the profession: therefore,

Resolved, That each State Medical Society be requested to appoint annually two delegates for each college in that State, whose duty it shall be to attend the examinations of all candidates for graduation: and that the colleges be requested to pérmit such delegates to participate in the examination and vote on the qualifications of all such candidates.

This was, on motion, referred to the Committee of Conference.

The paper of Dr. Jones, presented at the morning session, was taken from the Committee on Publication and referred to the Committee on Prize Essays.

Dr. Eve moved to record the name of Dr. Benj. W. Dudley as a permanent member, which was adopted by a unanimous vote, the delegates all rising to their feet in token of respect.

Adjourned till to-morrow morning, at 9 o'clock.

THIRD DAY.

THURSDAY, May 9, 1859.

The President called the Association to order at 9 o'clock, and the reading of the minutes of yesterday was dispensed with.

The first business in order was an amendment to the Constitution, laid over from last year, and proposed by Dr. T. L. Mason, of New York, to insert in the first line of the second paragraph of Article 2, after the words "shall receive the appointment from," the words "any medical society permanently organized in accordance with the laws regulating the practice of physic and surgery in the State in which they are situated, and consisting of physicians and surgeons regularly authorized to practice their profession."

Also, to add to the sixth paragraph of the same article the words, "but each permanent member of the first class, designated in this plan of organization, shall be entitled to a seat in the Association on his presenting to this body a certificate of his good standing, signed by the Secretary of the Society to which he may belong at the time of each annual meeting of this body."

Dr. Lyndon A. Smith, of New Jersey, said amendments to the Constitution should be adopted with care, and though, perhaps, that now proposed might be desirable, still as Dr. Mason, who had proposed it, was not present to explain his views, he moved that the subject be laid over until next year. This suggestion was adopted.

Another constitutional amendment, proposed by Dr. Henry Hartshorne, of Pennsylvania, and laid over from last year under the rules, provides to add to the second article the words, "No one expelled from this Association shall at any time thereafter be received as a delegate or member, unless by a three-fourths vote of the members present at the meeting to which he is sent, or at which he is proposed."

This amendment was adopted.

Another amendment, proposed by J. Berrien Lindsly, of Tennessee, was called up, to omit in article 2 the words, "medical colleges, hospitals, lunatic asylums, and other permanently organized medical institutions in good standing in the United States," and also to omit the words, "The faculty of every regularly constituted medical college or chartered school of medicine shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital containing a hundred inmates or more shall have the privilege of sending two delegates, and every other permanently organized medical institution of good standing shall have the privilege of sending one delegate."

This was laid on the table until the next annual meeting.

An invitation was received from Mons. Groux, requesting the delegates to meet him at the Hall of the University at noon to-day, to witness experiments on his congenital fissure of the sternum, which was deferred until 4 o'clock this afternoon, as the Association had previously accepted the hospitality of Mr. and Mrs. Robert J. Ward at the former hour.

Dr. McDermot submitted the following resolutions :

Whereas, a vast proportion of the disease and misery that afflict our race is caused by the excessive use of intoxicating liquors, and whereas, in the opinion of this Association, the evils of intoxication can be most effectually remedied by the establishment of Inebriate Asylums, wherein the victims of intemperance may be subjected to such restraints and treatment as shall effect a thorough reformation of their habits ; therefore,

Resolved, That this Association recommend the establishment of Inebriate Asylums in the various States of the Union.

Resolved, That the State and County Medical Societies and all members of the medical profession be requested to unite in diffusing among the people a better knowledge and appreciation of the beneficent purposes and important benefit that would be conferred upon society by the establishment of such Asylums throughout the various sections of the country.

This resolution was referred to the mover as a special committee, with a request that he would report thereon at the next meeting of the Association.

Dr. Shattuck offered the following, which was adopted:

Resolved, That the committee appointed in May, 1857, on Criminal Abortion, be requested to continue their labors, and especially to take all measures necessary to carry into effect the resolutions reported by them on the first day of the meeting.

Dr. Yandell, from the Committee on Voluntary Essays, made a further report that a communication had been received from Dr. Langer, of Iowa, on Subcutaneous Injections as remedials, which, on motion, the author read.

The essay was referred to the writer as a special committee, with the request that he would report further at the next annual meeting of the Association and continue his investigations.

Invitations to visit the Insane Asylum and the Library and Museum of Transylvania University were received.

The President appointed as the Committee of Conference to meet the committee from the Teachers' Convention, the following gentlemen:

Drs. Blatchford, Troy, N. Y.; Condie, Philadelphia, Pa.; Bozeman, Montgomery, Ala.; Brodie, Detroit, Mich.; and Sneed, Frankfort, Ky.

Dr. D. Meredith Reese, from the Nominating Committee, made the following final report:

Special Committees continued.

On Quarantine—Drs. D. D. Clark, Pa.; Snow, R. I.; Jewell, Pa.; Fenner, La.; and Houck, Md.

On Medical Ethics—Drs. Schuck, Pa.; Murphy, O.; Linton, Mo.; Powell, Ga.; Eve, Tenn.

On Tracheotomy in Membranous Croup—Dr. A. V. Dougherty, N. J.

The Effect of the Perincal Operation for Urinary Calculi upon Procreation in the Male—Dr. J. S. White, Memphis, Tenn.

On Mercurial Fumigation in Syphilis—Dr. D. W. Yandell, Louisville, Ky.

On the Improvements in the Science and Art of Surgery, made during the last half century—Dr. Joseph McDowell, St. Louis, Mo.

On the Cause and Increase of Crime and its Mode of Punishment—Dr. W. C. Sneed, Frankfort, Ky.

On the Education of Imbecile and Idiotic Children—Dr. H. P. Ayres, Fort Wayne, Ind.

On the Uses and Abuses of the Speculum Uteri—Dr. C. H. Spillman, of Kentucky.

On the Topography of Vermont—Dr. Perkins, of Vermont.

On the Pons Varolii, etc.—Drs. S. B. Richardson, of Kentucky, and Fishback, of Indiana.

On the Physiological Effects of the Hydro Carbons—Dr. F. W. White, of Illinois.

The paper from Dr. Ellis, of Massachusetts, on the subject, "Does the Microscope enable us to make a positive diagnosis of cancer, and what, if any, are the sources of error?" Was referred to the Special Committee on the Microscope, of which Dr. Dalton is chairman.

On motion the report was adopted as a whole.

Honorary resolutions were passed to the memory of the following members of the Association, deceased:

Dr. W. W. Boling, of Alabama; Dr. Thomas D. Mutter, of Pennsylvania; Dr. P. C. Gaillard, of South Carolina; Dr. Jabez G. Goble, of New Jersey; Dr. John K. Mitchell, of Tennessee.

Dr. R. K. Smith, of Philadelphia, submitted the following:

Resolved, That the death of Dr. John K. Mitchell, one of the members of this Association, has been to this body a loss keenly felt by every man who knew him. His eminence as a teacher, his varied acquirements in every department of learning, and his generous social qualities in every relation, endeared him to every member of the profession who had the pleasure of his personal acquaintance.

Resolved, That the family be notified of the action of this Association.

Other more formal resolutions were offered and feeling eulogies pronounced.

Dr. Sayre offered the following, which were adopted by acclamation :

Resolved, That the thanks of the American Medical Association are eminently due and and are hereby presented to the citizens of Louisville, Ky., for the princely hospitality publicly and privately extended to the members of this body during its present session.

Resolved, That to the Committee of Arrangements and the Profession of Louisville, generally, our thanks are due for their kind and assiduous attention to the Association, and for the hearty welcome with which they have greeted our Convention in their flourishing city.

After the transaction of some other unimportant routine business,

On motion of Dr. Davis, the Association adjourned, to meet at New Haven on the first Tuesday in June, 1860.

The registration book during the day announced the names of Drs. D. G. Thomas, of New York; William S. Cain, of Kentucky ; and Peter Allen, R. K. McMeans, and W. R. Kable, of Ohio—making 305 members in attendance during the session of the Association.

EDITORIAL AND MISCELLANEOUS.

THE HEALTH OF OUR CITY.

Thus far in the summer season (June 25th), have we advanced without the appearance of Yellow Fever, and if we may judge from the "signs of the times," we may be led to hope for exemption during the entire season. Observation in private practice, as well as at the great Charity Hospital, shows that we have but few cases of fever, and these not of a severe grade. On the 17th of June, 1858, yellow fever made its appearance, and the number of cases steadily increased from week to week. Now, we have only vague reports of yellow fever in newspapers published out of New Orleans—the thing bearing a semblance of a wish on the part of our neighbors that we may be afflicted. In our city a report got out that a certain physician had six cases—some said sixteen, and others sixty—and we are told that our energetic President of the Board of Health, being allowed to visit the most palpable case, promptly pronounced it a case of *apoplexy*. Another instance wherein the old adage, "doctors will differ." There is one good rule about yellow fever in New Orleans, however. The disease always commences among the low, unacclimated population, the gates of the Charity Hospital are always open to this class, without any restriction whatever, and if there is any fever in the city, the Hospital never fails to corroborate the fact. We have for years watched the wards of this institution, and they constitute a reliable index of the sanitary condition of the city. Thus far, no case of yellow fever has appeared in the Charity Hospital.

We have had little warm weather this season, and our citizens have hardly been conscious of the presence of summer. Families remain later than usual, and the city is, consequently, by no means as dull as we are wont to see it in June. Those who insist that "terrene disturbance" exerts a strong influence in producing yellow fever, will have a fair opportunity of testing the theory this summer, as an immense amount of street paving is to be done, and we notice the iron pipes of the Gas Company stretched along many blocks preparatory to the process of laying.

For ourself, after twelve long years of hard labor, with no recreation worth the name, we leave our sunny south for more northern regions. We are weary, indeed we are sick, and we go in search of that without which wealth, fame, power, all earth's treasures are naught—we go in search of health. We expect to divest ourself of thoughts of sick men, of medical journals, and all the routine of an editorial life, and until the 1st of October next we hope to be free. Then, with the will of Him in whose hands we are, we hope to reënter upon our labors with renewed energy, both physical and mental. In the mean time, our pet, the Gazette, is in the hands of those who promise to issue it regularly, and who are perhaps more competent to give our patrons a *quid pro quo.* Confident that we have not a subscriber who will grude us the boon we go in search of, we say good-bye, and wish one and all a pleasant and profitable summer.

TO THE EDITOR OF THE AMERICAN MEDICAL GAZETTE:

1. When we desire our powers of "apprehension" brightened, we shall not study the effusions of the Editor of the American Medical Gazette.

2. When we wish our morals purified—*shall* we seek the editor?

3. We did not publish "Dr. Mott's own qualifications of that letter," because we have never seen the same; and until we *see* that Dr. M. has written a letter "amounting to a retraction," we shall certainly not believe it.

4. We flatly contradict the editor's assertion that "Dr. B. (we) and every other surgeon in New Orleans "uses the sponge probang as advocated by Dr. Green."

5. We have no personal acquaintance with either Dr. Mott or Dr. Green, and have never expressed our opinions in relation to the burning and swabbing practice with any other view than that of assisting in crushing out a practice which we conscientiously believe to be irrational and mischievous. We care not one fig whether great men on this or the other side of the Atlantic sanction the thing, as long as our reason tells us it is wrong we shall say so.

Fire away, gentlemen. We claim to be as honest a physician as any one of you, and, medicine being a republic, we claim the right of expressing our opinions. Many a good and true man was assailed for not subscribing to the dogmas of Broussais and Rush, but that did not keep the splendid fallacies of those men from withering in the crucible of time. We are always ready to be convinced of wrong, but we are jealous of our right to urge our honest opinions. Once again, we say, we believe the burning and swabbing practice to be fallacious, and if we live twenty-five years longer, we expect to see it laughed at as often as spoken of. It is contemptible as compared with the brilliant theory of Broussais, and yet they will sleep in the same grave.

THE BUFFALO MEDICAL JOURNAL, for June, comes to us from New York City, and bearing the title of "New York Monthly Review and Buffalo Medical Journal." From its pages we learn that its worthy editor, Dr. Austin Flint, Jr., has changed his residence to New York City, but, retaining his chair in the Buffalo Medical College, he will issue his valuable journal simultaneously in both cities. The number before us, the first of vol. 15, is replete with interesting matter, and shows clearly that the editor is a working man. We wish him all the good he anticipates by the change noted.

From the same journal we learn that Prof. Austin Flint, of the New Orleans School of Medicine, has removed from Buffalo to New York City, where he will spend his summers. Thus the large cities of New York and New Orleans will afford this distinguished gentleman the amplest opportunities for pursuing his literary labors, as well as making his skill in the treatment of diseases of the chest most available.

PENNSYLVANIA MEDICAL COLLEGE.—We regret to announce that the entire faculty of this useful institution have resigned their chairs, and as the faculty of the Philadelphia College of Medicine have been elected to their places, there are now but three medical schools in Philadelphia.

AMPUTATION AT THE HIP JOINT.—Dr. J. Mason Warren has lately reported a successful case of amputation at the hip joint—the first in Boston.

OVARIOTOMY.—Prof. Miller, of Louisville, Ky., lately reports two successful cases of ovariotomy—the only cases he has ever operated on.

Prof. C. A. Pope, of St. Louis, Mo., reports four cases, two of which were successful and two fatal. In one of the former the ecraseur was used.

Prof. J. W. Hamilton, of Starling Medical College, reports two cases, one of which was successful. In the other case the tumor was found adherent to the abdominal walls, and it could not be removed. The patient died.

Dr. Hamilton says that, in Ohio, twenty-four cases have been operated on, of which eleven have been successful.

DR. J. J. LEVICK, PHYSICIAN TO PENNSYLVANIA HOSPITAL. It is not long since we announced the appointment of this worthy gentleman to this post of distinction in Philadelphia. In the Medical and Surgical Reporter of the 28th of May we perceive reports of his first clinical remarks to students of medicine. One of the bright spots in life is to witness such preferment of one with whom we labored as a fellow-student, and whom we know to be so worthy. Many a long year has glided by since we parted, and many hundred miles lie stretched between us, but the medical press has, from time to time, put forth the fruits of our old companion's pen, and we could see that he was laboring as assiduously as when we left him. If he gets his just reward, he will rise higher yet.

KAPPA LAMDA—A SECRET SOCIETY OF MEDICAL MEN.—From the Northern journals we learn that there exists in New York a secret society of medical men, the object of whose association appears to be the advancement of themselves by mutual support. They are reaping the just reward of their union—the severe censure of the medical press, and, no doubt, of all right-thinking medical men. Medicine is a Republic, and can never flourish under the influence of *Know-nothingism.* As men, we may have our personal likes and dislikes, but as medical men, in our relations to the community on whom we throw ourselves for support, we must be one and inseparable. It is a part and parcel of our ethics, that the bitterest personal enemies should meet at the bed-side of the sick, if called upon, with minds only devolving on the welfare of him who seeks their professional aid. Have it otherwise, and our noble science sinks into utter uselessness and dishonor. We know a doctor who refused to go to see a lady who was flooding (and who was without medical aid), because she was the patient of a physician with whom he was on unfriendly terms. What would he have said if he could have exchanged positions with the husband of the sick lady? Such fruit as this is the only kind that grows on the tree of Kappa Lamda.

PROFESSORIAL RESIGNATIONS AND APPOINTMENTS.—Profs. Barker and Childs have resigned their chairs in the New York Medical College. No successors yet. Profs. Hun and Dean have resigned their chairs in Albany Medical College. To supply the deficiency their chairs have been merged in two others. Prof. Howard retires from the chair of Anatomy in Savannah Medical College, and Dr. W. R. Waring is appointed to the vacancy. Dr. Geddings has returned to the Medical College of South Carolina, and fills the chair of Practice. Dr. Austin Flint, Jr., has been appointed to the chair of Physiology in Buffalo Medical College.

MEDICAL DEPARTMENT OF LIND UNIVERSITY.—We have before us the "First Annual Announcement" of this new Medical School in Chicago. Our readers are aware that this is a new school, on a new plan, and that several of the professors have lately been connected with Rush Medical College at Chicago. We notice that there are eleven professorships, and there are Junior and Senior Departments, in the first of which the students attend the lectures on five branches, besides dissecting; and the second they attend lectures on six branches, besides clinical lectures and dissecting. All our readers know we are the strong and practical advocates for improvement in medical teaching, and we hope this scheme may succeed, but we can't exactly see through it. We fear the matter is a little too complicated.

YELLOW FEVER USEFUL.—The old adage is, that all things are made for some wise purpose. Until lately we have been at a loss to divine the virtue of Yellow Jack. But we have found it out. He comes to free our city of the hordes of quacks, in the shape of Homeopaths, Hydropaths, Corn Doctors, Pile Doctors, *et id omne genus.* As soon as our warm June sun begins to shine between the shoulders of these gentry, they have loud calls northward. Their lives are too precious to be thrown into a yellow fever grave. At any rate, we get rid of them for several months in the year.

REPORT OF DEATHS IN THE CITY OF NEW ORLEANS FROM 24TH DAY OF APRIL TO 19TH DAY OF JUNE, 1850:

From 24th April to 1st May.—Men, 51; women, 20; boys, 26; girls, 19; adults, 71; children, 45. Males, 77; females, 39. Total, 116.

Principal Diseases.—Consumption, 23; infantile convulsions, 13; chronic dysentery, 4; inflammation of lungs, 7; still-born, 4.

From 1*st to* 8*th of May.*—Men, 45; women, 27; boys, 32; girls, 25. Adults, 72; children, 57. Males, 80; females, 49. Total, 129.

Principal Diseases.—Consumption, 20; infantile convulsions, 9; enteritis, 5; conjestive fever, 4; typhoid fever, 4; inflammation of lungs, 6; inflammation of throat, 6; teething, 4; still-born, 5.

From 8*th to* 15*th of May.*—Men, 42; women, 27; boys, 29; girls, 25. Adults, 69; children, 54. Males, 74; females, 52. Total, 126.

Principal Diseases.—Consumption, 17; infantile convulsions, 4; chronic diarrhœa, 6; chronic dysentery, 6; enteritis, 9; gastro-enteritis, 4; inflammation of lungs, 4; inflammation of throat, 8; infantile marasmus, 4; old age, 4; teething, 4; still-born, 6.

From 15*th to* 22*d of May.*—Men, 26; women, 21; boys, 39; girls, 34. Adults, 47; children, 73. Males, 65; females, 55. Total, 120.

Principal Diseases.—Consumption, 14; congestion of brain, 8; infantile convulsions, 6; chronic diarrhœa, 5; enteritis, 4; scarlet fever, 6; inflammation of lungs, 5; inflammation of throat, 6; teething, 9; still-born, 5.

From 22*d to* 29*th of May.*—Men, 35; women, 28; boys, 32; girls, 35. Adults, 63; children, 67. Males, 67; females, 53. Total, 130.

Principal Diseases.—Consumption, 18; cholera infantum, 5; congestion of brain, 5; infantile convulsions, 4; chronic diarrhœa, 4; dropsy, 5; drowned, 4; chronic dysentery, 6; enteritis, 5; typhoid fever, 6; inflammation of throat, 7; infantile marasmus, 5; teething, 5; still-born, 8.

From 29th of May to 5th of June.—Men, 49; women, 19; boys, 44; girls, 26. Adults, 68; children, 70. Males, 93; females, 45. Total, 138.

Principal Diseases.—Consumption, 19; congestion of brain, 5; infantile convulsions, 7; chronic diarrhœa, 8; dropsy, 4; chronic dysentery, 5; scarlet fever, 4; inflammation of throat, 6; infantile marasmus, 7; teething, 5; still-born, 8.

From 5th to 12th of June.—Men, 32; women, 22; boys, 33; girls, 47. Adults, 54; children, 80. Males, 65; females, 65. Total, 134.

Principal Diseases.—Consumption, 19; congestion of brain, 5; infantile convulsions, 6; chronic diarrhœa, 8; chronic dysentery, 6; inflammation of throat, 14; infantile marasmus, 7; teething, 5; still-born, 6.

From 12th to 10th of June.—Men, 37; women, 18; boys, 38; girls, 33. Adults, 55; children, 71. Males, 78; females, 48. Total, 126.

Principal Diseases.—Consumption, 8; cholera infantum, 5; infantile convulsions, 7; chronic diarrhœa, 5; chronic dysentery, 8; enteritis, 4; inflammation of throat, 9; infantile marasmus, 5; teething, 8; still-born, 4.

It will be seen that not a case of yellow fever is reported, nor has there been one up to the time we write this line, (June 25th).

Under the head of inflammation of the throat it will be seen that a total of 55 deaths are recorded for eight weeks, the average being nearly 1 a day, and the highest weekly mortality being 14. The term "inflammation of the throat" is very vague, and would never lead to the proper conclusion that these have really been 55 deaths from diptheria, a disease which has been amongst us for two years, and which is still doing its work. Its extreme malignancy is sometimes really appalling, though we believe the majority of the cases are conducted safely through.

List of Payments to June 23, 1859.—Drs. Elbert Bland, $10, vols. 5 and 6; C. C. Baker, $5, vol. 6; W. O. Barker, $5, vol. 6; J. A. Collins, $5, vol. 6; W. A. Booth, $3, extra numbers; C. A. Manby, $5, vol. 5; A. Donnaud, $5, vol. 6; E. J. Hart, $15, vols. 4, 5 and 6; J. McDonald, $5, vol. 6; R. A. Pursby, $5, vol. 6; Curtius, $5, vol. 6; J. Hardgrove, $10, on account.

The above is but a poor list of payments in times so flourishing as these. We have a large number of delinquents on our list still, and cannot believe they wilfully withhold the pittance due us. Surely they have forgotten us.

EXCERPTA.

The Temperature and the Breath in Cholera.—We presented last week a new hygrometric theory of cholera, which was mainly remarkable by its singularity, and by the opposition which it offered to accepted views, and in which a certain set of facts appeared to confirm its author. The adjudication of the Bréant Prize for 1858, on the best researches concerning cholera, and the exposition by the commission appointed of the reasons which have influenced them in awarding the prize to M. Doyère, for his researches upon the composition of the air expired by cholera patients, and upon the temperature of their body at the last moment of their lives, offer an inducement to us to give a summary of these views, which are the results of protracted and intelligent investigation.

As early as 1832 M. Rayer announced that the air expired by cholera patients contained an excess of oxygen. M. Doyére confirms this result. The expired air never contained a quantity of oxygen equal to that inspired; but the more serious the condition of the patient, the more oxygen was given off. The carbonic acid expired was constantly in defect—not more than one per cent. on an average. The analysis of the products of expiration affords a measure of the gravity of the disease. In a patient who rapidly recovered, the absorbed oxygen was not less than three per cent. nor the exhaled carbonic acid less than two or three per cent. On the other hand, M. Doyère has never seen any patient saved after the figures fell below 1.75 per cent. for the former gas, and 1.45 for the latter, even though other symptoms were very promising. Usually the quantity of oxygen absorbed is always greater than the quantity of carbonic acid produced. The same fact had been pointed out by Dr. Malcolm, in 1844, in his treatise "On Physiology," in typhus patients; and M. Doyère has found the like results in experimenting on patients affected with typhoid fever. Is, then, this fact due to the special influences of these diseases? or, is the lessened elimination by the lungs a general condition of the febrile state? Here is an important question unanswered, and of the highest interest in the theory of febrile phenomena.

It is a remarkable fact that, notwithstanding the diminution of carbonic acid in the expired air, the temperature of the body does not fall, but that in proportion as the combustion of carbon lessens the heat of the body increases; and that when the lung is giving off much less than its normal quantity of carbonic acid gas, the axillary temperature reaches 40. deg. Reaumur, or more. As death approaches, when the clogged circulation is on the point of being finally blocked, and respiration becomes each moment less active, the axillary temperature reaches 43 deg. Reaumur, to which it rarely attains in the height of fever. These facts, which have been confirmed in England and in the United States, still call for interpretation. The temperature falls immediately on death. The same phenomena have been observed in typhoid fever.

Is, then, this elevation of temperature peculiar to certain classes of diseases? or is it characteristic of the agony of death? These are questions which remain to be decided by further investigations. Such investigations belong to the highest department of scientific medicine, and are so likely to be fertile in results that will aid in solving the mysteries that surround the theories of life, that they deserve that encouragement from scientific men which they are not likely to receive elsewhere, and call for that reward of praise and recognition which supplies the absence of any material recompense.—*London Lancet.*

TREATMENT OF SHINGLES BY THE APPLICATION OF COLLODION. *To the Editor of the Lancet.*—Sir: Should the following two cases be worthy of publication, I trust you will give them a corner in your journal:

T. C—— came to me in December last, with that peculiar species of tetter known as herpes zosta or zona. The disease presented itself on the upper part of the thorax of the right side, and, from the extent of surface it covered, had evidently existed for some days. The patient was unable to account for its appearance. I determined upon applying collodion, which I did with a camel's-hair pencil, over the whole of the affected surface. In less than twelve hours the irritation had greatly subsided, and the patient expressed himself relieved in a measure from the troublesome itching and darting pain attending the complaint. I repeated the application twenty-four hours after the first, and in four days from the commencement of the treatment my patient was well.

H. K—— presented himself in January last. This case was not of so long standing as the former, the patient having noticed the eruption only two days. The vesicles appeared at the lower part of the back, extending round to the groin of the right side. I applied collodion with the same good effect every twenty-four hours, and after four applications my patient was well.

I am, sir, yours, most respectfully,

K. Walter Goddard, M. R. C. S.

Nutford-place, Bryanstone-square, April, 1859.

Pagliari's Hæmostatic.—The following formula has been given for the preparation of this article: Eight ounces of tincture of benzoin, one pound of alum, and ten pounds of water, are boiled together for six hours in a glazed earthen vessel, the vaporized water being constantly replaced by hot water, so as not to interrupt the ebullition, and the resinous mass kept stirred round. The fluid is then filtered, and kept in stoppered bottles. It is limpid, slightly styptic in taste, aromatic in odor, and the color of champagne. M. Hepp, of Strasburg, has substituted white resin for the benzoin. Every drop of this fluid poured into a glass containing human blood produces an instantaneous magma; and by increasing the proportion of the styptic to the quantity of the blood, a dense, homogeneous, blackish mass results.

EXTRAORDINARY FECUNDITY. By Wm. Wood, M. D., of East Windsor Hill, Conn.—In the March number of the Medical and Surgical Reporter, for 1856, I related the case of Mrs. R., who, in five consecutive accouchments, gave birth to five living children, weighing 62 ℔s. 8 oz.—the largest 13 ℔s. 10 oz., the smallest 11 ℔s. 12 oz. Since then, a case has occurred in my practice which is perhaps still more remarkable. I was called to attend upon Mrs. S., Oct. 22, 1857, when she was delivered of three children, one male and two females. I was again called Oct. 13, 1858, when she was delivered of two male children, making five children in two confinements, in 11 months and 22 days. All would probably have been born alive had it not been for the officiousness of the nurse at the first labor, who said "she found something hanging, and thought it ought to come away," and had actually pulled away 15 inches of the funis before my arrival.

All were born alive except this one. The twins weighed 13 ℔s. 4 oz. (6 ℔s. 13 oz. and 6 ℔s. 7 oz.). The triplets, I regret to say, were not weighed. They were nearly as large as the twins; but calling them only 5 ℔s. 8 oz. each, which I am confident is below their true weight, it gives about 30 ℔s. of children in less than one year.

EXPERIMENTS RELATIVE TO THE HYPODERMIC TREATMENT OF DISEASE.—Mr. Charles Hunter related some experiments relative to the hypodermic treatment of disease. The object of these experiments was to test the value of this plan of treatment, and to compare it with other modes of administering medicine. The author stated that he had in two cases of neuralgia to desist from Dr. Wood's plan, because abscess followed the constant localisation; he was therefore induced to try the injection of parts distant from the neuralgic part. He found the greatest benefit follow this plan, and local inflammation was by this means avoided. Cases of neuralgia were cited showing how the injection of the cellular tissue (the tissue Mr. Hunter always injected) of any part would act rapidly upon and cure neuralgia in another part. Experiments were detailed which he had made to see whether these injections acted locally, or by being absorbed before they produced their effect. The conclusions were these: 1st. That they acted by absorption. 2nd. That they acted quicker than the endermic method or stomachic doses. 3rd. That they acted more effectually. 4th. That a small injected dose was equivalent to a much larger one by the stomach. Mr. Hunter then showed that for speedy action, which he supposed chiefly due to the rapidity of the absorption, this plan was superior to others. 1st. 1st. Where the immediate and decided effect of a sedative or narcotic was required. 2nd. Where narcotics administered by the usual methods fail to do good; and 3d. Where patients cannot or refuse to take medicine.

THE ACTION OF ELECTRIC LIGHT.—Two distinguished chemists were lately engaged in experiments on the fusion and vitrification of certain substances by the aid of the electric pile. They made use of a Bunsen machine, provided with 120 plates. The experiment lasted one hour and a-half; although the pile was not in action really more than twenty minutes. The experiments were at such a distance from the focus as not to be sensible of any elevation of temperature; but nevertheless in the evening, and all the night, they suffered much from weakness of the eyes, and continually saw colored sparks and flashes. The next day they both were attacked with erythema of the face, which was accompanied with pain and tension. The right side of the face of Mons. F. which was the side exposed to the bright flame, was red from the chin to his hair; he also had seen sparks only in his right eye. In Mons. M. who had kept his head depressed, the forehead only was attacked with the erythema. A slight desquamation was established about the fourth day. It is, therefore, not the calorific, but the chemical rays which thus affect the skin.

Population of Paris.—Within the actual limits of Paris there are 1,174,346 inhabitants. The suburban communes, comprising 351,189, after the projected extension of the boundaries to the line of fortifications, the population will number 1,525,535. Paris is by far the most populous capital on the Continent, inasmuch as Vienna has but 475,000 inhabitants, St. Petersburg 550,000, Berlin 430,000, Madrid 260,000, Lisbon 284,000, Naples 480,000, Constantinople 630,000, and Milan 160,000. London is the only capital in Europe more populated than Paris, numbering 2,400,000 inhabitants.

NEW ORLEANS

Medical News and Hospital Gazette.

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CASES ILLUSTRATIVE OF DISEASES OF THE URINARY AND GENITO-URINARY ORGANS.

By I. L. Crawcour, M. D., Prof. Chem. and Med. Jurisprudence in the New Orleans School of Medicine.

The portions of a medical journal which are usually most acceptable to the country physician, are those which treat of diseases in a practical manner, and probably there are no means so well adapted of conveying information as by reporting cases which have occurred in actual practice, commenting on them, and if possible deducing some general principle. I have thought it, therefore, advisable to collect such interesting cases as come under my notice from time to time; and as few maladies are so important as those affecting the generative organs, and as a rule, few which are so maltreated, I have in the present paper noted from my case book, some of those which present the most interesting features.

No. 1.—*Stricture of the Urethra.*—About the middle of December, 1857, a gentleman came to me from Arkansas, who presented the following symptoms. He was a tall, pallid, emaciated man, excessively feeble, and had been subject to stricture for ten years. Frequent attempts had been made by physicians in Arkansas, to pass a catheter, but none had succeeded in introducing one into the bladder. About six months before he came to consult me, he had been seized with total retention of urine; three physicians tried to relieve him, but without success, and one had the frankness to tell him, he believed he had made a false passage. After suffering extreme torture for forty-eight hours, he suddenly, while straining to pass water, felt something give way, a thin stream of urine, mixed with pus, issued from an opening just in front of the scrotum. Subsequently two other fistulous openings made their appearance, one a little above the first one, and the other near the perinæum. On examining him, I found three fistulæ in the situations above mentioned; and on desiring him to pass water, a few drops issued from time to time from the meatus, the greatest portion passing in three streams by the fistulæ. During the evacuation of urine, he suffered intense agony, groaning with pain, and the urine could only be expelled by a process identically analogous with milking. Every two hours he had to undergo this torture. The urine was thick, stinking, alkaline, and contained muco pus and triple phosphate in abundance. On endeavoring to pass an instrument, I found that a number three would just pass the meatus, and immediately slipped into a false passage, about an inch and a half from the meatus; on withdrawing it from this, it passed with comparative readiness for about four inches more, beyond which, no instrument could be made to pass. The whole urethra was exquisitely sensitive, and another false passage was found about three inches from the first. The smallest instruments, both wax and metal, failed to pass the stricture, and much annoyance was experienced by the sounds constantly entering the false passages. Convinced that as urine passed out by the meatus, the channel, although small, must be pervious, and consequently an instrument ought to pass, I procured a perfectly pure silver probe, nine inches long, and of less than the twentieth of an inch in diameter; being of pure silver, it was soft, and was capable of taking the exact curve of the urethra, as well as a wax bougie, over which it possessed the advantage of being more manageable. On putting my patient under chloroform, I succeeded after nearly an hour's manœuvring in getting the instrument into the bladder. Small as the instrument was, it was most tightly grasped, and could only be passed by absolutely, as it were, boring its way through the stricture. The great difficulty was in avoiding the false passages, the instrument constantly slipping into them. The patient was under the influence of chloroform the whole time, and on awakening, told me that I had been the first who had ever succeeded in passing an instrument into his bladder, although he had consulted many surgeons in this city, as well as in Arkansas. In order to improve his general health, I put him upon the use of cod liver oil, and gave also the iodide of potassium in three grain doses, twice daily. The sound was passed every other day. In about a week I passed another instrument, made on the principle of a wedge, also of pure silver; it measured at its point the same as the first instrument, and gradually increased in size, being the twelfth of an inch at about an inch from the extremity, and from this increasing to a sixth;

its shape was triangular and it was deeply grooved on its upper side. By this arrangement less resistance was offered than to the introduction of a cylindrical sound, and the groove acted as a catheter, allowing urine gradually to drain away. Being of pure silver, it was very ductile, and readily adapted itself to the shape of the urethra. I found that owing to the false passages a curved instrument could not be introduced, and the wax softened too soon to be of any avail; the pure silver instruments fulfilled every indication, as they could be introduced straight, and could be readily bent when required, by a gentle pressure upon the perinæum. The urethra still continued very painful, and for a considerable time it was necessary to pass the instruments when the patient was under the influence of chloroform. The fistulæ also were painful, and constantly discharged a large amount of pus. In order to relieve the local irritation, I directed him to use local baths of carbonic acid, which were readily prepared by placing a quantity of powdered marble in a chamber utensil, pouring on it diluted muriatic acid, and directing him to sit over this for ten or fifteen minutes. Much relief was experienced from this, and the intra-urethral inflammation was very much diminished. In about four weeks his condition had very much improved; a number six wax bougie could be introduced without much difficulty, and the desire to urinate frequently, was less, he being able to retain his water for six hours at a time. The bougies were usually retained for half an hour at a time, and as soon as practicable I employed silver sounds, which he said gave him less pain than the wax. Contrary to the directions in the books, I allowed him to live well, and ordered him to take a pint bottle of champagne daily; this and his cod liver oil agreed with him remarkably, and he gained flesh to a considerable extent. By a perseverence in treatment, and by increasing the size of the bougies very gradually, I at length succeeded in causing the urethra to receive a number ten sound, and after a continuous treatment of three months, he left the city, having been taught how to pass an instrument for himself, and with strict directions to pass it twice a week for six months. His condition when he left was a perfect contrast to his appearance on arrival. His urethra would receive a number ten silver sound without pain or uneasiness, all the fistulæ had closed, he could retain his urine as well as a man in ordinary health, and he had gained twenty pounds in weight. Six months after his departure I received a letter from him, stating he continued in perfect health, and experienced no disturbance in his urinary organs.

This case is interesting, as it was precisely the one for which Syme's operation would have been proposed, and executed by many surgeons. The number of the fistulæ, the excessive induration, the false passages, and the difficulty of finding and traversing the canal, would have been symptoms proving that Syme's operation was the only means of cure, and I am convinced from the condition of the patient, that any such procedure would have resulted in death. I consider that in very few cases is the operation of perineal section required; in all instances where the urethra is permeable, a cure may be produced by dilatation, provided it be cautiously and perseveringly attempted. In the words of an eminent surgeon of the present day, "when a stricture is passable, the cure is in our own hands," and I consider every stricture passable, if even a drop of urine issues from the meatus. All that is required is tact, knowledge of the anatomy of the parts, and perseverance, and if I were asked what quality is most required in the treatment of stricture, I should reply *patience*. He who has the most patience will assuredly be the best operator in this disease. Few surgeons can relate cases where death has followed the careful use of the sound in the treatment of stricture, but all will acknowledge having lost patients on whom they had operated by the perineal section. In a recent number of the London Medical Times and Gazette seven cases were reported; of these seven, two died, giving a mortality of over *twenty-eight per cent;* in few even of the major operations of surgery could such a *fatality* be found. It sometimes occurs that a stricture will manifest a constant tendency to re-contract; as far as my own experience goes, I have only witnessed this tendency in strictures anterior to the bulb, and the nearer the stricture is to the meatus, the greater is the tendency to contract. I have usually found in these cases internal incision a safe and efficient mode of treatment. In my opinion the operation of external incision should be confined solely to those cases of stricture which are really impermeable, and we shall find this form of disease exceedingly rare. Impermeable stricture can only occur, when from the long existence of large fistulæ the whole of the urine has for a continued period passed through them; in these cases the canal of the urethra becomes permanently occluded, and the operation by passing a grooved sound as far as the stricture and cutting on it becomes necessary. Again, traumatic lesions, by rupturing the urethra, may render the canal impervious ; but it is an error to consider any stricture impassable as long as any urine passes by the meatus. An important item in the treatment of stricture, and one which is frequently neglected, is the use of internal remedies; stricture may have a constitutional origin, and may secondarily affect the constitution by the irritation it induces. The first to point out the intimate connection between the general system and stricture of the urethra, was the late Mr. Abernethy, who frequently found disorders of the urinary organs to proceed from constitutional causes. "Indigestion," says he, "becomes a cause of foul and unhealthy urine, in consequence of much unassimilated matter being conveyed into the blood from the chyle. Nervous irritation affects the kidney and impairs its functions, so that while under its influence, scarcely anything but water is separated by that organ from the blood. The nervous irritation at the same time operates on the bladder, and creates a frequent and sometimes urgent desire to void this urine. If the kidneys and bladder can thus be operated on by nervous irritation, it is reasonable to suppose that the urethra will participate in the affection ; and I am convinced by numerous observations, that many diseases of the urethra, in both sexes, originate from this kind of constitutional dysury. Under such circumstances, I have known in different instances, strictures in the urethra, induration and tenderness of the whole tube, and even ulceration of its orifice to ensue." The experience of every practitioner will bear out Mr. Abernethy's views, and such high authority should certainly induce us to inquire particularly into our patient's habits, and to improve as far as possible his general condition. In the case under examination, evident benefit was derived from the cod liver oil and the iodide of potassium. The latter I have found invaluable, it has a tendency to produce absorption of the indurated tissues, and at the same time exerts an alterative influence on the system. The preparations of iron, of Peruvian bark and the neutral salts, are also exceedingly useful, and the employment of quinine in small doses will almost invariably prevent the rigors, which so frequently form an unpleasant accident in the treatment of stricture. Particular attention should be paid to the state of the bowels, and costiveness should be religiously avoided. An enema of cold water every morning, or ten grains of the sulphate of potash and five of rhubarb every night, will be found to answer well as laxatives. I think I have also seen much benefit from the use of podophyllin, which in doses of a grain, or half a grain, well triturated with sugar, forms an agreeable and efficient purge, with a special direction to the liver. In the case we are considering, the anterior false passage, an inch and a half from the meatus, was singular, and it is the only instance of such an accident in such a situation, I have ever seen. The practitioner who made it, evidently mistook the fossa navicularis for the urethra, for it is only by such a supposition that we can account for it. The baths of carbonic acid seemed to have a good effect in soothing local irritation; the patient always expressed himself as feeling relieved by them, and they appeared to produce a condition of partial anesthesia. I have frequently seen benefit from the injection of carbonic acid into the bladder, in irritable conditions of this viscus, and it was this fact, which led me to imagine that its external use might also be salutary.

No. 2.—*Stricture of the Urethra.*—T. R. C., aged 50, states he has suffered from stricture since 1846, and now experiences considerable difficulty in urinating; has to pass water usually every two hours, with considerable pain and straining; is unaware of having had gonorrhœa; has had instruments passed but never experienced any relief from them; on one occasion a surgeon in this city passed a catheter, and produced a great deal of pain, succeeded by the flow of a large quantity of blood, but no urine. On making a careful examination, I found a stricture two inches and a half, from the meatus urethræ; it measured about two lines in length, and was exceedingly hard; another was found about five inches and three quarters from the meatus, and it measured nearly an inch in length. The first stricture would allow a No. 4 wax bougie to pass, although with some difficulty; the second was almost impenetrable to a No. 1. At the commencement of the membranous portion of the urethra a false passage existed, apparently about an inch in length. The urethra was exceedingly irritable and sensitive, and the passage of any instrument even with the utmost gentleness, produced a very great deal of pain. The exploration of the urethra was followed during the night by a very severe rigor. He was ordered five grains of quinine, one of opium and two of camphor to be taken every night, and the instruments were introduced every other day. At the end of fourteen days I had succeeded in introducing without much difficulty, a No. 6 wax bougie, but the anterior stricture seemed to be incapable of permanent dilatation beyond this; although a No. 7 could be forced through, still on the next occasion it was with difficulty a No. 6 could be passed, and although I persevered for a fortnight, no further progress was made.

I accordingly came to the conclusion of dividing the anterior stricture by internal urethrotomy, and the operation was performed by means of Civiale's *urethrotome cacheé.* Only a few drops of blood escaped and the pain was trifling. Immediately after the division of the stricture, a No. 10 steel sound was passed with the utmost ease, as far as the bulb, where it encountered the second stricture; the instrument was retained in this position for fifteen minutes, when it was withdrawn, and a No. 6 wax bougie passed without pain or difficulty into the bladder. In twenty days from this, No. 11 was passed easily into the bladder, and the cure was complete. Three years have now elapsed and my patient has suffered no inconvenience, and urinates in a full and large stream. In this case the urethra was exceedingly irritable, and the anterior stricture, as I have often observed, was incapable of dilatation beyond a certain point. The introduction of the sound almost invariably produced rigors, and it has been stated by Chassaignac, that the urethral intermittent fever only occurs in strictures anterior to the bulb. Taking this fact into consideration, and noting that the stricture was one of those hard, callous, retractile ones, only found in the mobile portion of the urethra, I resolved to divide it, and the effect proved the justness of my views. Obstructions in the mobile portion of the urethra may be divided with perfect safety, in fact Mr. Guthrie states, "that the surgeon may divide if he should think fit, an obstruction in any part of the urethra with little danger, as long as he can feel the point of his instrument in the perinæum." In making the incision, it is important to observe that the instrument is in the median line, and the incision should be *deep;* a slight scarification is useless, the cut should extend through the whole indurated tissue, and partially through healthy membrane. The instrument I usually employ is the urethrotome of Civiale, which I have modified by allowing a series of bulbs, of different sizes, to be screwed on to the extremity. By this means greater precision as to the seat of stricture will be attained. The instrument should be passed to the stricture, and its bulb pressed against it for a few seconds, a slight jerk will inform the hand when the instrument has passed through; a movement of withdrawal should then be made, and the bulb will catch against the posterior edge of the stricture, the blade should then be pushed out, and the instrument withdrawn, until it is certain that the whole stricture has been divided; the blade should then be closed, and the instrument be removed. A large sized sound should now be passed and retained for some fifteen or twenty minutes. But little pain is felt, and usually but a very small quantity of blood is lost.

In the case under examination, the patient was able to walk home immediately after the operation; and as if in confirmation of Chassaignac's observation, no urethral fever occurred after the division of the anterior stricture. I do not, however, wish it to be imagined, that the intra-urethral section, although free from danger, is to be employed indiscriminately, it should only be resorted to when dilatation, after a proper perseverance has failed; and we shall rarely find this to be the case, except in those forms of disease where the stricture occupies a situation near the meatus. Stricture of the meatus itself I have always found undilatable, and it can only be relieved by incision. The false passage near the membranous portion of the urethra, was undoubtedly made by the surgeon, at the time my patient felt the pain, and had the excessive discharge of blood. Such an accident is, under any circumstances, inexcusable, and can only be produced by employing an unwarrantable amount of force, and by not being sufficiently careful in keeping the sound strictly in the median line. The use of bougies of the largest size, by pressing the false passage against the walls of the urethra, will usually in time obliterate it, by exciting a slight amount of adhesive inflammation. Such was the result in the present case.

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1. *A Treatise on Human Physiology, designed for the use of Students and Practitioners of Medicine:* By JOHN C. DALTON, JR., M. D., Professor of Physiology in the College of Physicians and Surgeons of New York.
2. *Human Physiology—Statical and Dynamical, or the Conditions and Course of the Life of Man:* By JOHN WILLIAM DRAPER, M. D., L. D. D., Professor of Chemistry and Physiology in the University of New York.

A REVIEW:

By ANTHONY PENISTON, M. D., Prof. of Physiology in the New Orleans School of Medicine.

Within the last three years our American physiologists have put forth two remarkable treatises on this important branch of medical science, two treatises which certainly represent better than any other single work in the English language the present state of physiological science. We say the two together embody nearly every thing that is important and necessary in physiology, for they are really complementary to each other, and written under different points of view, though both belong to the great experimental school, and therefore embrace many original investigations and ideas. The method so happily inaugurated by Magendie, and since continued with brilliant success by his great successor Claude Bernard, and his no less illustrious rival Brown-Sequard, has no where been more zealously followed up than in our country. This was in truth nothing more than should have been expected from the practical turn of mind which is characteristic of our country. Since the death of Marshall Hall, England, which has given birth to so many distinguished physiologists, the Todds, the Bowmans, the Pagets, the Carpenters, and many others, does not contain among their ranks any properly, so called, experimental physiologist, and yet let me not forget one exception, in the person of Dr. Pavy, who, if we mistake not, is lecturer upon experimental physiology at Guy's Hospital. But Dr. Pavy has been a pupil of Claude Bernard, in whose laboratory we had the pleasure of meeting him some years back, and judging from the experiments which he then performed with great ability, he is doubtless called to a high rank in the career which he has thus embraced. Still the English school is not properly an experimental one, and they have done more to classify and methodize the labors of the French and German authors, than in introducing or making any discoveries of their own. The great work of Todd & Bowman recently brought to a close is certainly no exception to our assertion. True, it has added greatly to our knowledge of many of the tissues of the body, and some of its chapters, as those upon the structure of the nervous system, upon the anatomy of the kidney, are mostly original investigations, and are yet the most complete monographs we possess upon the subject. But they are still structural anatomy, and therefore throw but little light on the uses and functions of those organs. So true is this, that if we take Mr. Bowman's admirable description of the kidneys, and ask ourselves how do these organs act, how are the elements of the urine eliminated from the blood, we should not find any very satisfactory answer. Our authors have advanced the theory, that the malpighian bodies eliminate the liquid constituents of the urine, and that the capillary plexus, which is intermediate between the afferent vessels and the emulgent veins, secrete, by means of the glandular epithelium with which they are provided, the more solid constituents of the urine, as the various inorganic salts. But has not this view, however, supported by the comparative anatomy of the kidney in the boa, and other animals whose urine consists of almost solid urea, been abundantly refuted by our distinguished countryman, Dr. Isaacs, of New York? The latter asserts on the other hand, that the malpighian tufts are covered with nucleated cells, contained within their capsule; that the proximate elements of the urine exist ready formed in the blood, and are separated in the malpighian tufts themselves.

Anatomy, therefore, does not teach us physiology, no more than a stray piece of machinery, could tell us *a priori*, its object and purpose, and the secret can only be obtained by observing nature herself in the very act, and while the principle of life lends the stimulus by which nerve and muscle and cell combine in harmonious action.

On the other hand, by experimental physiology must not simply be understood that process by which an animal is tortured to give too often fallacious answers to his scientific executioner. Doubtless it is from the lower animals that we must draw most of our materials, but the scalpel is not necessarily the instrument to be used, nor vivisection the only process; comparative anatomy is probably the source from which we shall ultimately derive the greatest assistance in our knowledge of human anatomy, but we shall study the phenomena differently from what we do now. We must eliminate pain, and its influence upon the nervous system or we cannot derive true conclusions, no more than we can expect to find in a man under the influence of disease and fever a type of healthy function. The truth of it is that nature undoubtedly makes the experiment herself, and the only and true task of the physiological anatomist is to discover the key which shall interpret the mystery of Creation and the law of the maker.

This law is to be studied in the gradual development of the animal series, from the simplest monad to the most complicated and last created in the great scale, Man himself. Take, for instance, the nervous system, on which so much has been written and so little comparatively known; has not every thing been done that the most refined and ingenious torture could invent to wring from nature her tardy confession; but with what result? Turn, O student, to thy cumbered pages and tell me the function of the sympathetic nerve, or of the spinal cord itself; to say nothing of the organ of thought itself! Is not confusion still supreme, with scarce a scattered ray of light, here and there darkly shining? perhaps, like *ignes fatui*, more delusively than truthfully. And yet, doubtless, in these two queries the etiology of disease is more directly concerned than in any other portion of the system; perhaps more than in the blood itself, in spite of all humorist doctrines to the contrary, be it said. Let me in passing refer on this subject to the admirable essay of Dr. Campbell, of Georgia, on the influence of the sympathetic nerve, to show how much has been done, and how much yet remains to do for those who can imitate his matchless skill in analysis and observation.

It would seem, however, as if the attention of physiologists were now turned to the study of comparative anatomy as a rich mine in which many of the functions of the nervous system can be more accurately studied under the great law of the adaptation of means to ends, a law which is written on every page of nature, on every animal which breathes, on every blade of grass which grows in the sunshine of creation. Then, perhaps, will the problem be differently stated, for instead of investigating the apparatus, and asking what are its uses and objects, would it not be better to ascertain the habits, instincts and various capacities of an animal, and then examine the separate mechanism by which these results have been obtained, so that by comparing minutely and closely many individuals in a given series the law of development might be discovered, and ultimately the function of each additional portion of nerve matter. These analogies of development in the nervous system are the more curious and interesting when we bear in mind that the human fœtus in its periods of growth goes through precisely the same stages of transition which are observed from the lowest to the highest orders of created beings, viz : the primitive cords, the gradual addition of ganglia, then of commissures connecting these ganglia, and finally of developments upon these ganglia, ending in the formation of the brain itself, with its numerous convolutions, and large accumulations of nervous matter proportionate to faculties and powers far beyond those of all other animals. But in thus looking forward with earnest hope to methods which may enlarge our means of investigation, and open to us a rich mine of physiological discovery, I am not disposed to undervalue the services derived from vivisection, since probably the same results could not have been obtained by any other means so readily or so accurately. Nothing, for instance, can be more ingenious and satisfactory than the beautiful experiment devised by Bernard, to ascertain the functions of the spinal accessory nerve which he has thus shown to consist of two roots, the shorter of which anastomoses with the pneumogastric, and is principally distributed to the crico thyroid muscle as an organ of the voice; whereas the superior and inferior laryngeal nerves, branches of the pneumogastric, preside over the sensibility of the glottis and is connected with respiration. On the other hand he has shown by the same experiment that the longer branch, distributed to the sterno-mastoid and trapezius muscles, presides also over the functions of vocalization by means of these two muscles which are antagonistic to the respiratory muscles, or rather which so control expiration as to modulate the voice. We thus understand why one nerve, by means of its two branches, is distributed to organs so far distant from each; but in reality so perfectly harmonious in action that while the shorter branch produces that tension of the vocal chords which is necessary for their vibration, the longer branch is engaged in supplying the requisite quantity of air necessary for the modulations of the vioce in speaking or singing. This is certainly one of the satisfactory experiments on the functions of the nervous system, and makes us scarce regret the hecatomb of the slain offered on the altar of science. It would be an easy task for us to find among the writings of Claude Bernard, Brown-Séquard and others, many important facts which have thus been gradually gathered to the garner of science by these indefatigable laborers; but they would range over the whole domain of physiology, and could scarcely be contracted within our narrow limits; suffice it for us to have shown that physiology is a progressive science, and that he who would keep up with this onward march must pick up the crumbs by the way-side as they fall from the hands of these pioneers of progress. Those authors, therefore, who have gone through the laborious task of collecting these disjointed fragments, and presenting them as one harmonious work, certainly have done good service and deserve our gratitude at least.

A learned writer in the Medico-Chirurgical Review claimed for the English medical works the preëminence as text books for the student, implicitly admitting for them the combined qualities of clearness of style, logical method, at the same time that they are supposed to present an accurate view of the actual state of the science each in its own branch. Making some allowance for this natural piece of vanity from one who is a countryman of Watson, Erichsen, Wilson, Pereira, Copland, Graham, and numerous others, who, doubtless, fulfill the above characteristics, we scarcely think that any English text book on physiology would just now answer all these tests. Take, for instance, Carpenter, which has so long, and still occupies so conspicuous a rank among our text books; we scarcely think that it represents the present state of the science, although in the last edition, bearing date 1855, the author, with that industry and learning which are characteristic of all his works, has incorporated into the book almost every thing of any importance which has been written upon the subject. Indeed, this fact which has rendered it a perfect encyclopædia of physiological science, and thereby invaluable to the more advanced and reflecting reader, makes it on the other hand objectionable as a text book for the student and beginner who is lost amid this vast storehouse of materials, and can scarcely follow those disquisitions, especially which treat of the physiology of the mind and cerebral functions: As to the smaller work by the same author, though purporting to be a synopsis of physiology, it is in many respects so abstruse and heavy that it will never recommend itself as a text book for beginners, and will scarcely be useful to those who are disposed to enter more deeply into the subject. In fact it cannot for one moment bear comparison with Kirke's & Paget's admirable little manual, the latter certainly bearing off the palm, as the most lucid exposé of the science, and the most complete synopsis of physiology we know.

Still it is only a synopsis, and therefore physiology can no more be learned from a mere abstract, though it be a masterpiece of analysis, than history can be studied from a chronological table. In this respect the works both of Professor Draper and Professor Dalton will be welcome to the student or general reader, presenting as they do the subject under a much more agreeable shape. Indeed the eloquent pages of Draper are so logical and so profoundly suggestive that they are singularly attractive to the reflecting student.

Nothing for instance can be more interesting than some of its chapters on the functions of the eye, and the nervous connections between this organ and the brain. The author explains with great force and beauty the application of these facts to the physiology of hallucinations:

"Impressions already existing in the brain may take, as it were, an outward direction and be projected or localized among external forms, or if the eyes be closed or the observer is in darkness they will fill up the empty space before him with scenery of their own."

The author applies the term inverse vision to that state of the nervous centres in which old impressions, from some peculiar state of the brain or registering ganglia, assume such a vivid intensity, that they arrest the attention of the mind, and the patient confounds a subjective phenomenon with an objective impression. Now these and other chapters, illustrative of man's complex nature, are as highly suggestive and instructive to the practical physician as to the moral philosopher. The former having to consider the influence of the mind upon the body, cannot but receive with satisfaction an explanation which will enable him to understand many a complicated case. We are disposed then to be thankful to Dr. Draper for the insight which he thus gives of the functions of the nervous system, upon almost every branch of which the work abounds with much original and valuable information. It is certainly a relief to turn to these eloquent pages, after having poured for some time on those learned authors who consider the human frame as nothing more than a laboratory, and who maintain that the laws of affinity, of composition and decomposition, must explain all the phenomena of life.

Those chapters which treat upon the organs of sense are for the most part very full and complete; the physiology of vision especially is treated in a masterly manner, and seems to have been a subject of predilection with the author. In fact he has advanced a new theory upon the functions of the retina and choroid, which is curious enough, and has in its favor a great many plausible arguments. The author asserts that, like photographic impressions, the phenomena of vision are the results of the heating effects of the rays of light, and that the club-shaped particles of Jacob's membrane are highly sensitive organs which communicate to the sensory surface of the retina the condition of temperature of the black figment. Under this point of view he explains the complex anatomical structure of the retina assigning to each a definite use and function, the tubular layer being the conducting agent, the vesicular undergoing rapid metamorphoses, and the granular affording the material from which the vesicular is constantly reproduced. The choroid with its rich vascularity supplies the materials from the blood by which the whole mechanism is kept in harmonious action, at the same that its pigmentary coat affords the surface upon which the rays of light impinge, their chemical and heating effect depending upon their absorption. This view thus explains perfectly the significance of the blind spot, that being the place where all nerve tubules enter the eye, and the choroid being necessarily deficient at this point, the chemical changes dependent upon its presence cannot take place. But, Mr. Melloni, a distinguished European savant, and Mr. Biot, in the Comptes rendus de l'Academic des Sciences, 1833 and 1839, have shown that certain substances, called athermanous bodies, transmit light, though entirely impermeable to radiant heat, such for instance are alum and sulphate of copper. The apparatus used for these experiments is called the thermo-multiplier, an exceedingly ingenious and delicate instrument by which the smallest possible alteration of temperature is at once detected, though otherwise utterly inappreciable. We thus learn that by different combinations of green glass and alum we can remove from a ray of light all the heat it may possess without diminishing its illuminating property, just as, on the other hand, we can, by means of a dark glass, and rock crystal coated with lamp black intercept all the light of the sun, though a considerable amount of heat would still go through. These facts, therefore, constitute an almost insuperable objection to our author's theory on the phenomena of vision, unless he can explain the point in such a manner as to do away with these objections. Dr. Draper, having been engaged for many years on this subject will, perhaps, in some future edition remove this only difficulty in the adoption of his theory.

In concluding, we would express our obligations to this work, as one of those from which we have drawn the greatest amount of information with the least trouble to ourselves; the lucid and fascinating style of the author making it one of the most interesting works we have read on any subject.

We now turn to the beautiful treatise which Dr. Dalton recently contributed as his portion of the debt, which every one is said to owe to the profession, and truly he has amply fulfilled his obligation. Being the most recent treatise upon physiology, it must naturally be expected to represent better than any of its predecessors, the present state of physiology, and the student will find there clearly exposed the most recent discoveries, which but a few months back were scattered over the numberless journals and periodicals where they first made their appearance. Most of these have also been verified by the author, and are therefore described with that simplicity and clearness which can only result from personal experience. Those who desire to go through the same process, will derive valuable suggestions as to the modus operandi, from the descriptions of the author, as well as from his own valuable plates with which the book is beautifully illustrated. The first part, occupying nearly two-thirds of the book, is taken up by nutrition, including digestion, absorption, respiration, circulation, secretion and excretion; the second part of the book is upon the nervous system, and the last part treats very fully of the functions of reproduction.

Upon all the various subjects connected with digestion, this work is very full and complete, and presents nearly all the views entertained by modern writers. The author seems to have studiously avoided the mooted questions upon these branches, such, for instance, as the mechanism by which the blood corpuscle becomes arterial or venous, whether by chemical action or by simple endosmotic action of the gases; perhaps the author has thought it more prudent to consider only those questions which may be said to be well settled, leaving the others for future consideration and obligation.

Though we may regret not having the opinion of one so well prepared to analyze these vexed questions, there is no doubt on the other hand, that in a text-book for the student it is well to avoid those points upon which any doubt still exists. Faith should attend the neophyte, it is time enough to doubt when a wider insight and a firmer hold of the science will show him that these are but the nebulæ which advancing science must resolve into clusters of stars.

Upon the functions of the liver, of the pancreatic juice and the different steps in the digestive process, the author has adopted the views advanced by Bernard, and lends to them the additional authority of having confirmed them by personal experience.

We rejoice that he has not noticed those empty cavils started by Colin, Figuier, Sanson and others, in opposition to Bernard's great discovery of the glycogenic function of the liver. These men have no scientific weight, and only seek to bring themselves into notice by false experiments and distorted conclusions. Mr. Colin is a demonstrator of anatomy, at the veterinary school of Alfort; he is notoriously a man of bad faith, and we have heard two of the professors of that school accuse him of direct falsehood, and of having appropriated as his own, experiments which had long been performed by others. Knowing the character of the man, we should be very loath to accept anything coming from such a suspicious source. As to Mr. Figuier, who is an agregé of the school of pharmacy, in Paris, he is no anatomist, and has shown himself a very indifferent chemist, at least if we accept as authorities upon this subject such men as Dumas, Pelouze, Rayer, Lehmann and others. Mr. Dumas was chairman of a committee appointed by the Academy of Sciences, in Paris, to investigate Mr. Figuier's memoirs, and after numerous experiments performed with every possible care, following the very process indicated by Figuier, they came to the very opposite conclusion; and the commission, consisting of Dumas, Pelouze and Rayer, unanimously confirmed all the facts expressed by Bernard upon the glyogenic functions of the liver.

This Report will be found in the Comptes Rendus des scéances, de l'Academie des Sciences, 1855, vol. XL, No. 25, June 18.

We translate literally the following passage from that report:

"The whole difficulty lies in this point: Is there or is " there not any sugar in the blood of the vena porta of an " animal in full digestion of a meal consisting of meat " alone, all substances containing sugar being thereby " avoided? Your Committee have examined with all the "care possible, the products derived from the vena porta "of an animal sacrificed in these conditions, and in which "the author (Mr. Figuier) *thought he recognized sugar by "means of Frommherz's test. Your Committee have not "found any evidence of it by the test of fermentation.*

"So far the doctrine advocated by our colleague (Mr. "Bernard) appears intact. The researches upon this important subject are still doubtless incomplete; but we "would advise those who would pursue those investigations "not to attach too much importance to such tests as the "solution of tartrate of copper and potassa. All these "phenomena of coloration and of reduction produced by "organic substances, are very uncertain and deceptive. "When the sugar cannot be isolated as such, we must "satisfy ourselves of its presence, by means of fermentation, and by the development of carbonic acid caused by "fermentation."

Such is the report of the highest scientific tribunal in Europe upon Figuier's boasted refutation of Bernard's discovery, and we do not know that even with his Protean advocacy of false doctrines, he has ventured to build any fresh superstructure of the same kind. Mr. Sanson appears to be another veterinary surgeon at Toulouse, who contends that the glycogenic substance, first discovered by Mr. Bernard in the substance of the liver, is to be found in every tissue of the body; but it seems to us really, to use a common expression, that he runs the thing into the ground, in attempting to prove that the body is made up of starch, or dextrine. Our opinion is, that when all these minor luminaries will have disappeared and be forgotten, the name of Claude Bernard, like that of Harvey, will be blazoned forth on every page of physiology, as a model of an experimental philosopher.

The second part of Dr. Dalton's book treating of the nervous system, is unfortunately not so complete and perfect as the former portion, and what there is of it only the more makes us regret that the omitted portions have not been submitted to that logical method and clear style which constitute one of the great attractions of the book. There are abundant materials now before him for a much more complete treatise upon the nervous system, and in order that his work may be perfect, we hope that he will also treat in his next edition of the organs of sense, without which a treatise on physiology is sadly deficient. The last part of the book treating upon Reproduction is really a masterpiece; and there is no longer any excuse for our students to ignore this portion of physiology, under pretence of its abstruseness. If it were only for this part of the book, the profession will owe a debt of gratitude to the learned author. Let us not omit to mention that the enterprising and liberal publishers, Messrs. Blanchard & Lea of Philadelphia, seem to have spared neither trouble nor expense upon the work; good paper, large, clear type, and 254 illustrations, mostly original, make it altogether a most beautiful book, and we cannot too highly recommend it to those for whom it has been designed.

Thus it is that book after book makes the labor of the student easier than before, and since we have seen Blanchard & Lea's new edition of Gray's Anatomy, certainly the finest work of the kind now extant, we would fain hope that the bugbear of medical students will lose half its horrors, and this necessary foundation of physiological science will be much facilitated and advanced. In conclusion we shall quote the words of an author, whom we admire and respect :

"My faith in the power of the intellect of man is profound. Far from supposing that there are many things in the structure and functions of the body which we can never comprehend, I believe there is nothing in it that we shall not at last explain. Then, and not till then, will man be a perfect monument of the wisdom and power of his Maker—a created being knowing his own existence, and capable of explaining it. In the application of exact science to physiology, I look for the rise of that noble practice of medicine which, in a future age, will rival in precision the mechanical engineering of my times. In it, too, are my hopes of the final extinction of Empericism, under whatsoever name it preys upon the credulity of the masses."

LONDON CORRESPONDENCE.

London, *June* 25, 1859.

My Dear B.—I arrived at this great metropolis on the 7th instant, after a very pleasant journey from the time I left home, and have been recently so busy seeing novelties and wonders, that I begin to feel tired of it, and must soon change the scene. Among the many and various interesting objects that have attracted my attention in London, I have not overlooked its great medical institutions, and I beg leave now to offer you the following crude observations upon such of the hospitals and distinguished medical men as I have seen. I must here acknowledge my obligation to our old friend and quondam fellow citizen, Dr. G. T.

Browning, for his very kind courtesy ever since I have been in the city.

ST. THOMAS'S HOSPITAL.

June 13th. Dr. Browning accompanied me to this venerable institution, which dates back to a beginning in the year 1213. It was first an almshouse, but in 1552 was endowed and incorporated by King Edward VIth, whose statue now stands in the yard, and was erected in 1737. It looks like the statue of a boy of sixteen years. In the front yard is a statue of Sir Thomas Knight, erected in 1714, one of the earliest and greatest benefactors of this institution. We walked through wards, consisting of very large rooms, with beds on each side. Every thing looked very neat and comfortable. The head nurses are very intelligent women, who have very nice apartments and receive good wages. There is a Magdelen ward for venereal diseases; only seven or eight cases in at present. The general wards were not full. The operating room is extremely small, plain and antiquated. We followed some students into the lecture room, and sat down to hear a clinical lecture by Dr. Barker. There were only four students present when he began, but ten more came in afterwards. He commenced a slow sort of Presbyterian style of reading reports of cases, with minute detail of symptoms, and hardly ever looking up at his audience, which soon produced such a soporific effect on me, that I thought it best to retire, and we did so, I think, without his observing us. I was unable to procure any report of this hospital.

WESTMINISTER HOSPITAL.

Operating Day.—Tuesday, June 14, 1859.—My friend

Dr. Browning failing to meet me at two o'clock, I determined to go to the hospital without a conductor. On entering, saw a young man, who told me there was no impropriety, and showed me the way to the operating room. At the door we met Mr. Holt, one of the surgeons, to whom I introduced myself, and received a polite invitation to accompany him and take a seat near by. There were two other surgeons present, Mr. Brooks and Mr. Morehouse, who belonged to the hospital, and had operations to perform.

Operation 1st.—Removal of a Small Fribous Tumor from the breast of a young woman. She was put under chloroform, and the tumor soon removed, with a considerable portion of the mammary gland. Two or three small arteries were tied, and the wound sewed up with *silver* sutures.

Operation 2d.—Lithotrity in a man who had suffered from severe stricture of the urethra and also stone in the bladder. The stricture had first been relieved, and then the stone was crushed. He had undergone the operation twice before this. He was put under chloroform, and with some difficulty a piece of the remaining stone was found and crushed. Mr. Holt said that he now only performed lithotomy when lithotrity was forbidden by some peculiarity in the case.

Operation 3d.—Stricture in the Urethra.—Man aged about thirty-five, and rather weak in the lungs. On this account Mr. Holt would not use chloroform. He used an instrument for *tearing* open the stricture. It was quickly done, and the pain only momentary. Mr. H. has a steady hand, and is a nice operator.

Mr. Brooke now took the stand.

Operation 1st.—Removal of External Piles from a woman.

She was put under chloroform, and it was done with scissors.

Operation 2d.—Hydrocele.—In a man for the third time; a simple puncture with a trochar—no injection afterwards. Mr. B. said it was hardly necessary. Patient's penis had been amputated previously.

Mr. Holthouse, the third surgeon, then took the stand, and had nothing but one operation on the eye of a blind man. He removed a portion of the *lens*, but said it would not do much good.

I walked through the wards of the hospital and found everything neat and comfortable. The operating room and lecture room both very small. There is a school now connected with this hospital, not chartered to confer degrees, but authorized to send applicants to the University as candidates. This hospital has 175 beds, and affords relief to about 2000 in-patients and 20,000 out-patients annually.

MIDDLESEX HOSPITAL.

June 15*th.*—Dr. Browning accompanied me to this hospital at twelve o'clock, being operating day. Found nothing on hand; walked through the wards, and found the usual arrangement of large wards, with about twenty beds in each—low, iron bedsteads and no curtains, divided into male and female, medical and surgical wards. The amphitheatre, operating or lecture room small and very plain. Dissecting room small and very plain, on the ground floor of a back building, only one long table, suitable for six or seven subjects. In this building are also the apothecary and chemical rooms. Number of patients about 150. It is a fine hospital. Large number of out-patients as in the previous.

ST. MARY'S HOSPITAL.

June 15*th.*—This is one of the new hospitals—a fine large building—large wards, with very high ceiling. I got the last published report, which was for 1857. The number of in-patients for that year was 1480; out-patients 4026; average number of in-patients 143.

Operating day.—Mr. Coulson surgeon—a good-looking man, with a smiling countenance, apparently about fifty-five years of age, grey hair.

Operation 1*st.—Removal of a small Cheloid Tumor* from the top of the sternum of a young woman—a simple thing and soon over. She was put under chloroform.

Operation 2*d.—Removal of a large Morbid Growth,* involving the right labium pudindi. He did'nt seem to have any very definite idea about it, but cut out a considerable portion of it. She was under chloroform. In both these operations Mr. Coulson used the silk sigature. These were all the operations he had. The operating room or amphitheatre is larger and neater than any I have yet seen.

GUY'S HOSPITAL.

June 17*th.*—I took breakfast early and got to this celebrated old hospital about nine o'clock, with no other guide than a letter from my friend Dr. Crawcour to Dr. Odling, professor of practical chemistry in the medical school. I found a lecture going on by Dr. Oldham, addressing about thirty students in a very fluent and animated style on *Deformities of the Pelvis.* He is a good looking man, and is one of the professors of midwifery. The lecture being clinical, he entered fully into the propriety and method of premature delivery. At the close of the lecture we all followed him into one of the wards, and saw him perform the operation.

He did it with a long trochar, and very soon drew off about eight ounces of the liquor amnii. He then examined a new case that had just entered the ward—an intelligent looking nervous young woman, with a countenance expressive of much anxiety and suffering. The doctor questioned her minutely relative to the previous history of the case, and then examined by the touch. He almost immediately shook his head and said aloud to the closely packed students around, "*malignant disease to great extent.*" No sooner had he said this than the poor woman's countenance which had been lit up with anxious hope, suddenly sunk, and she began to sob most bitterly, as if fully conscious that her doom was sealed. I could not but remember how often the French physicians and surgeons had been condemned for doing this very thing. If he had not pronounced the diagnosis in her hearing, it would have answered just as well, and the poor woman might have enjoyed the *delusion of hope* for some time, which would certainly be preferable to the pang of despair.

I then went into the laboratory, and found Dr. Odling lecturing and demonstrating practical chemistry. Dr. O. is a very handsome and youthful looking man, a fluent talker, and expert manipulator. He was a class mate of our Prof. Crawcour, and seems to be equally enthusiastic in his branch. At the close of his lecture he greeted me very cordially, and carried me through all the departments of this great hospital. The buildings cover a very large space of ground, and are well arranged into medical, surgical and maternity wards, laboratory, dispensary, pharmacuetical, dissecting and lecture rooms, museum and library. The house makes up about 500 beds; the inpatients average 500 constantly, and 5000 a year. The *out*-patients number about 40,000 a year. All these London hospitals appear to have dispensaries attached to them. The museum at Guy's is very fine, (15000 specimens) and the library has eight or ten thousand volumes. The lecture room would seat about 200: At this hospital is a bronze statue of Thomas Guy, its sole founder, in 1821, and a beautiful marble statue of Sir Astly Cooper.

From this I went to *University College Hospital,* with a note of introduction to Dr. Jenner. I found him busily engaged prescribing for *out*-patients. I sent him my note and was soon invited to enter. I took a seat and saw him examine a considerable number of patients, men, women and children. There was one case of intermittent fever, quite a rarity in these parts. Dr. J. examined the patients with great care before prescribing. All the children had to be stripped naked. He does not attend wards at this time.

Dr. Jenner is a nice tidy looking gentleman; hair black, and very thin on the top of his head; of rather low stature, but stout; looks Scotch, but says he is English, and not related to Edward Jenner, of vaccine celebrity. After finishing his service, he kindly took me through the wards of the hospital and also the university building adjoining. As we went along we passed Dr. Parkes, and on my telling him that he, Dr. Parkes and Dr. Watson were the men, of all in London, I had most desired to see, he introduced me to Dr. Parkes, whom I found to be a very fine looking and affable gentleman. I took the occasion to mention Dr. H. F. Campbell's report "*on the nervous system in febrile disease,*" and said I would send him a copy if they would review it in one of the London journals, which they promised to do. They gave me their cards and invited me to call. I found everything about this hospital in nice order. There are generally from 150 to 200 patients in the wards, and a large number of out-patients apply twice a week for advice and medicines.

Having through the kindness of Dr. Odling obtained a ticket to the *Royal Institution of Great Britain*, I went at 9, P. M., to hear a lecture by Mr. Faraday, one of the most distinguished philosophers of the day. When I applied, the secretary said he could not refuse me a ticket, but that I might congratulate myself on being an American, as there was hardly any other to whom he would grant the favor, and being the last lecture of the season, the house would be very full. I presume he was influenced somewhat by the fact that this great institution, the first of the kind in London, was founded in 1799 by a few men, among whom was our distinguished countryman, Count Rumford. It was here that Sir Humphry Davy delivered his celebrated lectures, and announced his great discoveries in chemistry and electricity, which have immortalized his name and conferred honor on the institution. He was followed by Mr. W. T. Brande, and then came Mr. Faraday, who, full of years and honors, still charms and delights the distinguished audiences that always attend his lectures. On this occasion the lecture-room was crowded with the very *elite* of the city, among whom were many noblemen and ladies. The subject was *phosphorescent light.* Mr. Faraday is a very good looking man, with a profusion of grey hair, fine eyes and ruddy complexion. He is upwards of sixty years of age, but quite active, and one of the most expert and successful experimentors I ever saw. He is very fluent, and speaks rapidly, as if anxious to communicate as much knowledge as possible in the time allowed.

His experiments were beautiful, and he was listened to with profound attention. He lectured about an hour and a quarter, and I did indeed congratulate myself on having the happiness to see and hear so great a philosopher. This is a splendid institution, having a fine museum, and a select library of 30,000 volumes.

I here closed my observations for the day; went back to Morley's; jotted down my memoranda, and retired to rest pretty late.

ST. BARTHOLOMEW'S HOSPITAL.

June 18*th.*—I went to this ancient and celebrated institution about noon. This was the theater of Mr. Abernethy's great deeds and quaint humor, and is decorated with a fine marble bust and portrait of him. St. Bartholomew's was founded in 1102, and is, I believe, the oldest of all the London hospitals. It receives within its walls nearly 6,000 in-patients annually, and its out-patients and casualties amount to nearly 90,000 annually. It contains 650 beds of which 420 are alloted to surgical cases, and 230 to medical cases and the diseases of women. The museums of anatomy, materia medica and botany are extensive, and open daily to students. The library contains upwards of 5,000 volumes of standard works, also the chief medical journals. A reading room is open to students of the school, during the greater part of the day. Among the medical and surgical staff, are some names well known in our country, as the venerable Sir Wm. Lawrence, Mr. Stanley, Mr. Skey, Mr. Paget, Dr. Burrows, Dr. West and Dr. Farre. On entering I was conducted to the room where Mr. Paget was prescribing for surgical out-patients. I sent him my card, and he welcomed me cordially. He dispatched thirty or forty patients in a very short time, and then having a pressing engagement, he asked his assistant to conduct me to the operating room and wards. It was operating day, and Mr. Stanley now drove up. He saluted me politely, and asked me to walk in and see what was to be done. Mr. S. is rather short and stout, with grey hair and a good face. Having learned from my conductor that there was very little to be done here to day, I concluded to go at once to King's College Hospital, where there was a prospect of seeing a number of operations.

KING'S COLLEGE HOSPITAL.

When I arrived I found about a hundred spectators in the amphitheatre, and the distinguished surgeon, Mr. Ferguson, commenting on a case upon which he had just operated. Mr. Ferguson looks to be about fifty years of age, robust, well formed, rather bald, and a very cool, self possessed air. He speaks very deliberately, and not without the disagreeable appearance of affectation. But he is as cool and deliberate in operating as he in speaking. I witnessed the following:

Operation 1st.—Lithrotrity on a man; third time. The patient was put profoundly under chloroform, and Mr. F. proceeded to extract about a dozen of fragments of stone from the bladder. From the manner with which these rugged fragments were dragged through the urethra, I shall certainly not envy this patient the pleasure he will have in emptying his bladder for the next day or two. He was on the table nearly an hour.

Operation 2d.—Amputation of the Thigh. This was a case of *ununited fracture,* which had resisted all the means resorted to for the purpose of producing bony union. Mr.

Ferguson removed the limb with the knife alone, and then sawed off a considerable portion of the bone. After tying the arteries, he closed the stump with silk sutures, and it looked very neat. It was done under chloroform. After the operation was over, he drew from the lower fragment a long ivory peg that had been driven into the bone to cause reunion. Mr. F. did not mention any other means that had been resorted to in this case. I could not but suspect that this poor fellow had lost a leg for the want of skillful surgery.

Mr. Bowman now took the stand, and operated on a young woman for a deformity of the upper lip. It was very tedious, and her beauty was certainly not improved at the close of the operation, though it may be ultimately. Mr. B. is a tall, thin, handsome man, with an intellectual countenance, and apparently about forty. His remarks on the case were very interesting.

Mr. Wood, assistant surgeon, now took the stand, and operated for the permanent cure of reducible hernia on a young man. He took occasion to condemn Wurtzer's operation, and then performed *his own*, which, from the little I saw and heard of it, I am unable to describe so as to make you understand.

Dr. Watson holds the honorary position of consulting physician to this hospital, but does not attend wards. Dr. Budd, his successor, is in service, but I have not had the pleasure of seeing him.

LONDON FEVER HOSPITAL.

June 23d.—This morning my ever kind friend, Dr. Browning, conducted me to this institution. Having seen very few cases of fever in any of the hospitals I have visited, I felt a strong desire to see one specially devoted to this class of disease which, as you are aware, is the most important of all in our part of the world.

The London Fever Hospital is rather small (only about 200 beds), situated in a high and airy place, and most admirably arranged for ventilation and cleanliness. The visiting physicians are Alexander Tweedie and Southwood Smith; assistant physicians, Wm. Jenner and C. Murchison; resident medical officer, Dr. J. D. Scurrah. The latter received us, and very politely conducted us through the entire establishment. Neither of the visiting physicians were present, which I regreted, as the names of Tweedie and Southwood Smith have long been familiar to us as writers on fever. They are now old men, and rather behind the new lights of the day.

Dr. Scurrah gave me the annual report for 1858, from which it appears there has been a marked decline in the prevalence of fever in the last year or two. Some other diseases besides fever, amounting to more than one-third of the whole, are admitted into this hospital. The admissions for fever last year were 357, viz: typhus 15, typhoid 180, febricula 44, scarlatina 118. Deaths from fever 59, viz: typhus 9, typhoid 28, scarlet 22. This shows a mortality from fevers of more than 16 per cent., which certainly does not reflect much credit upon the fever doctors of the great metropolis, especially when we consider that every possible convenience and advantage are here supplied. The only drawback is, that some of the cases are admitted in advanced stages of disease, a thing that occurs at all hospitals. The largest admissions occur in September; the smallest in February. Daily average throughout the year, thirty-eight.

The mortality from typhus fever was upwards of 50 per cent., from typhoid 13.72 per cent., and of scarlet fever 19 per cent. Now I would ask whether any respectable practitioner of seven years' experience in any city, town or neighborhood in our southern country, would ever boast of such success as this in the treatment of fever. Dr. Scurrah says they do not pretend to *cure* fevers at this hospital, but rather to guide them as safely as possible through their natural course. The treatment consists of wine, nourishing broths, sometimes camphor mixture, and astringents when there is diarrhœa.

It is evident that fevers at this day constitute but a small portion of the diseases requiring medical aid in London, so different from the state of things in the days of Sydenham. And this is unquestionably due to the wonderful improvement that has taken place in sanitary measures. In the three weeks I have spent in London I have traversed it in almost every direction, and I must say it is the cleanest city I ever saw. The only place I have seen that could be compared to even Common street, our great thoroughfare, was around the great fish market of Billingsgate, and even this comparison would be decidedly in favor of the latter. London was once as sickly as New Orleans, but is now one of the healthiest cities in the world; and this is entirely due to her admirable sanitary measures. If our own ill-fated city would only follow her example, there is no telling what great benefit would accrue. I have obtained some valuable reports from the General Board of Health, which I shall bring home with me.

The hospitals named are all I have found time to visit during my sojourn in London, though there are five or six others of high standing. Nearly all of the great hospitals have medical schools attached, and afford fine facilities for instruction. In these schools students are prepared for examination before the Royal Colleges of Surgeons and Physicians, which confer the highest degrees upon the successful candidates.

The amount of charity extended to the afflicted poor of London is almost beyond calculation, and reflects great honor upon the liberality of her wealthy citizens. All the great hospitals are free to the poor; but besides these, there are eighty-eight free dispensaries, and other medical institutions of various kinds, devoted entirely to the relief of the poor. From the Medical Directory I learn that in only twenty-one of these institutions the average number of patients for a single year was upwards of *one hundred and ninety thousand.* In a single one—the *Metropolitan Free Hospital,* the average number of patients was fifty thousand. Many other instances might be given of extraordinary charity and benevolence to the poor. It really appears to me that the poor of this great city are the favorite *pets* of the rich, who bestow on them every imaginable care and comfort. But I find my letter is getting entirely too long, and lest I should weary the patience of yourself and readers, I will here conclude, with the promise to let you hear from me again, after I shall have visited some of the other seats of medical science in this part of the world. I start to Edinburgh to-morrow, thence to Dublin, and after that to Paris, where I shall probably write again.

I remain, very truly, yours,

E. D. FENNER.

To Dr. D. Warren Brickell, New Orleans.

STRYCHNIA IN CHRONIC INTERMITTENTS.

By Jas. S. Harrison, M. D.

It is, I apprehend, a well established principle, that success in the treatment of almost every form of disease, depends, to a great extent, if not entirely, upon a proper understanding, and right appreciation of the true pathological condition with which we have to do, and the adaptation of our therapeutical agents to that condition. And in this the whole science of practical medicine may be concentrated.

To know precisely *what is the matter*—to understand the nature and extent of the lesion, the anatomical characters, and relations of the implicated organs, or structure, form the only true and rational basis upon which we can hope to form any correct system of therapeutics, or successful theory of treating disease. It cannot be denied, however, that but too many, even amongst those who claim to be regularly educated physicians, pay comparatively little attention to this basis; and content themselves with a species of *routinism*, which is, in many sections of the country, and sometimes in the *cities* too, the opprobrium of our profession.

It is not my purpose, however, at present, to dwell upon this subject, but to present a few observations upon the use of strychnia in the cure of chronic intermittent fevers.

It is, probably, in accordance with the experience and observation of every intelligent practitioner of medicine, that the course pursued in the management of an acute, or recent attack of this malady, is wholly, or at least generally unavailing, when it assumes a distinctly *chronic* character. In the *former*, a prompt emetic, followed by a combination of blue mass, quinine and Dover's powder, in suitable proportions, will almost invariably succeed within a very short period. In the *latter* form, this plan *alone* will almost as invariably fail to produce a permanent cure; at least this has been my experience for several years past, in the various sections of the West and South in which I have practiced medicine. Now the question arises, why is this? We answer, because of the peculiar character of the functional lesion with which we have to contend in the *chronic* form. In the beginning of these attacks, the organs chiefly involved are, the stomach, the liver, and the spleen; when, however, this disease has been permitted to continue unchecked for a number of months, as is sometimes the case, although these viscera continue to suffer, yet, other parts of the organism become involved, and none more so, perhaps, than the *cerebro-spinal axis;* and a functional derangement of this important nervous centre, I apprehend, more than any thing else, distinguishes *acute* from *chronic* intermittents.

We assume then, that in every case of distinctly marked chronic intermittent, this important centre is more or less involved, and that the peculiar character of this lession is *depression* of *its functions.* Strychnia is known to exert a direct and specific influence upon the cerebro-spinal nerves; and its *peculiar effect* as a *nervous excitant* is to *elevate* the functions of this particular nevous centre; hence the rigidity and muscular twitchings which invariably follow its excessive administration.

If, then, the premises we have assumed, in relation to the structure and functional lesion involved in chronic intermittents, be correct, we are furnished, in the active principle of the nux vomica, with a remedy, other things being equal, upon which we may confidently rely, as seldom failing to control and permanently relieve that very troublesome and unpleasant form of disease—*chronic ague.*

I have had occasion to use this article in a number of cases during the last ten years, and in almost every instance with the most gratifying results. I will now mention a few of these cases, and my mode of using the strychnine.

I was called to see W. S., a lad of some twelve or fourteen years of age. He had been suffering severely with this disease for about nine months; he was somewhat bloated, and had that peculiar countenance, sallowness of complexion, feeling of langour and muscular weakness, so characteristic of this disease. After a little attention to the general health he was put upon the use of strychnine, and upon the second paroxysmal day escaped his chill. The medicine was continued morning, noon, and night, for a short time, the chills did not return, and in a few weeks the patient seemed to be perfectly restored.

Mrs. M. S., the mother of this lad, had been similarly affected for twelve months; she was some fifty years of age, and appeared to be almost worn-out with the disease and the *excessive medication* to which she had been subjected. A similar course was adopted in her case, and similar results followed. She was cured.

Mr. W. M., aged thirty-seven years, called upon me, stating that he had been suffering with occasional chills and fever for eight or ten months; had been under homœopathic treatment; had tried a great variety of remedies, but to no permanently valuable purpose. He was depressed in spirits; greatly emaciated; had scarcely any appetite, and feared he should die soon if not relieved. I gave him my strychnine prescription; he commenced its use immediately; he escaped the chill which he expected to occur on the next day. He continued to use the medicine occasionally, for a short time after, two or three times per day, and the chills did not return. I saw him twelve months afterwards, the paroxysms had not returned, and he seemed to be in sound health.

I will relate but one other case.

Mr. F. K., aged thirty years, originally of good constitution, had been afflicted with chills occasionally for nearly four years. The paroxysms had been frequently interrupted by the use of quinine and other agents, when an exemption of some weeks would occur, but upon the slightest exposure the chills would return. He had used quinine until he was well satisfied it *alone* would not cure him; he thought that its long continuence and excessive use was producing partial deafness and other unpleasant consequences, and declined using it any longer, and wished to know if nothing else could be done. I advised the use of the strychnia and the *spinal embrocation*, to which he readily assented; he had but one slight chill after adopting this course of treatment. The recovery in this case was as complete as in the others I have mentioned.

These cases may serve as a fair specimen of those which have come under my observation; and from what I have witnessed of its happy effects, I am well satisfied that *strychnia* is, emphatically, *the remedy* in chronic intermittents.

The following is the prescription which I invariably make (the capsicum I have sometimes omitted, when it seemed to disagree with the stomach):

℞	Strychnia	gr. iss.	
	Sulph. quinine	gr. xv.	
	Capsicum	gr. vi.	
	Brandy	℥ iv.	M.

Of this mixture, I direct one teaspoonful (for an adult) every hour, for six or seven hours preceding the expected paroxysm; at the end of this time I require the patient to take a cup of warm sage tea, and go to bed (if he is not already there), and remain until the paroxysmal hours pass. This course is to be repeated on the next "chill day," after which a teaspoonful of the medicine is to be taken two or three times per day, until the four ounces are exhausted. And the results of this course in my hands, at least, I have stated in the cases to which I have referred.

It may be objected that, after all, I have to rely upon the assistance of other agents in connection with strychnia for the favorable results. In reply to this, I may simply say, that in *all the cases* in which I have used this combination, the quinine, as usually employed, had been used *very freely*, in some excessively, without producing the good effects which have invariably followed the use of the combination I have presented.

And, in view of this fact, and of the small amount of quinine used in my prescription, it is, at least, fair to conclude, that the strychnia, as a *nervous excitant*, and in my case, at least, as an *antiperiodic*, produced the favorable results. And I am inclined to think, from other experiments which I have made, that the rejection of the quinine altogether would not have changed the results in the cases which I have now reported.

CHAMPAGNOLLE, ARK., *June 27th*, 1859.

SPECIAL SELECTIONS

OBSERVATIONS

ON IRIDECTOMY IN IRIDO-CHOROIDITIS, GLAUCOMA, AND OTHER AFFECTIONS OF THE EYE, WITH CASES.

By Dr. Pagenstecher, of Wiesbaden. Translated by C. Beard, M. D., Prof. Anat. N. O. School of Med.

Partial excision of the iris in the treatment of sub-acute and chronic inflammations of the internal ocular membranes, introduced into practice by Dr. Von Graefe, may be looked upon certainly as one of the most remarkable improvements with which ocular therapeutics has been enriched in modern times. Worthy of the rank which it now occupies, side by side with other curative agents, attributable to the indefatigable zeal and genius of this experimenter, it has already attained, notwithstanding its short career, the most remarkable success.

No work upon this subject has as yet been published to my knowledge, if I except the writings of Graefe himself and those of the younger Rothmund, in Munich, in his memoir upon the operation for artificial pupil; further communications concerning the results of this operation will be interesting, not only to the man of science, but to the patient. This consideration will justify me in publishing a few observations of cases of iritis and irido-choroiditis in which the operation was practiced.

Iridectomy which, until recently, has only been made with a view to the establishment of an opening for the passage of luminous rays, may now be considered as one of the most valuable antiphlogistic agents, in as much as it not only fulfills the above indication, but in many cases puts a period to inflammation and many of its consequences.

In less than two years I have observed at the Institute twenty-four cases of iritis and irido-choroiditis in which I have been able to perform this operation, but not to be too prolix, I choose for publication eight from the above, which may be considered as types as far as concerns the form and degree of the disease.

In as much as I was about to embark in a practice entirely new, contrary to the received opinion, that we should abstain from operating on an organ affected with inflammation, I made my observations with the most scrupulous exactitude; guided by the same spirit, I shall make it a duty to cite cases in which the results of the operation have been less brilliant.

Obs. I. *Irido-choroiditis of the right eye, atrophy of the left eye.*

The patient in this instance, married, aged 31, had always enjoyed good health, and had menstruated regularly up to her last pregnancy; she was delivered four years ago for the third, and last time, since which period her menses have ceased. About a year after her last confinement she was affected with an inflammation of the left eye, which, after being marked by severe orbital pains, redness, lacrymation and disturbed vision, terminated with complete loss of sight and atrophy of the globe. It may be remarked that during the progress of the atrophy the patient was subject, in this eye, to the perception of luminous phenomena, such as sparks, flashes of light, etc. For a year she has experienced, in the right eye, the same symptoms which characterized the disease in the left. Her condition at the time of her entry in the Institute was as follows:

The left eye presented, to the touch, evident symptoms of softening; the cornea was turbid, conjunctiva slightly red, the sclerotic of a pale rose color and spread over with vessels, dilated more than ordinarily, and varicose, which seem to penetrate it abruptly. The iris was discolored of a blueish green, the pupilary margin entirely adherent to the anterior portion of the capsule, and the pupilary aperture was occluded by smoky lymph exudations. The visual faculty, as has been already mentioned, was entirely destroyed.

The right eye showed the conjunctiva pale red; slight lacrymation, with photophobia and defective vision; a heavy, dull pain, in the orbit, increasing constantly, in proportion to the exacerbation of the inflammatory phenomena, has existed since the commencement of the affection. A few ciliary vessels, somewhat developed, are perceptible upon the sclerotic; the pupil is somewhat obstructed by an exudation upon the anterior capsule which totally unites this with the pupillary margin; the tissue of the iris is discolored of a greyish brown, and abnormally upon the stretch. Sight, for the last six months, has been so much diminished, that the patient reads, with difficulty three-quarter inch type, and all objects seem to be enveloped in a dense mist or cloud. Lately, she has perceived photopsic phenomena, luminous circles, flashes of light, more especially when the head is in a reclining position.

Iridectomy was performed on the 26th February, at the superior portion of the iris. The dressings were removed on the 1st of March, at which time there was already a manifest improvement in vision; the patient could distinguish type of one-half the size of those formerly visible. Mild derivative treatment, resulted in a short time in a condition so satisfactory that, on the 18th of March, she left the institution cured. The results of the operation were as follows: The protrusion of the globe reduced, conjunctiva and sclerotica natural and no longer injected; the new pupil clear, while the exudation in the natural pupil seemed to have lost its density; the iris was of a pure blue color; the neuralgic orbital pains had ceased, as well as the photophobia, and the patient could read ordinary type distinctly; no further inflammatory symptoms ensued; in fact they were no longer to be feared.

Result of the operation: Cessation of inflammation; re-establishment of normal vision.

Obs. II. *Chronic Irido-choroiditis of the right eye. Sympathetic affection of the left.*

Mad. W. DeB., aged 48, commenced to suffer two years ago, about the time of her periods, with a disturbance of vision in the right eye which seemed to augment, without, however, being accompanied with any notable inflammatory symptoms; no redness or lachrymation was evident, there was slight photophobia and some neuralgia or rheumatismal pains about the head, extending over one side, and occurring periodically, each access leaving the patient's vision in a more impaired condition. For the last nine months she has only had a vague perception of light, and can barely distinguish daylight from darkness. It was not, however, the condition of the right eye, of the restoration of which she had given up all hope, which induced the patient to visit me, but the gradual diminution of vision in the left, which had come on within the last nine months (the time at which was probably completed the occlusion of the right pupil); up to this time she had been able to perform, without trouble, any work requiring good light, but has been since then forced to abstain from using her eye, as fatigue ensued, with violent orbital pains upon any attempt to do fine work.

Condition at the time of her entering the institution: Right eye—conjuctiva slightly red; cornea transparent and aqueous humor somewhat turbid; iris muddy; convex in front from pressure of exudation in the posterior chamber; pupillary margin entirely adherent to anterior capsule; pupil very much contracted, and occluded with lymph; the sclerotic presents a number of large dilated veins spread over it.

Vision is such that the patient can still follow the movement of a highly illuminated body. The globe somewhat softer to the touch than the left.

Left eye—external aspect completely normal; pupil movable and free of opacity; opthalmiscopic examination renders visible slight turbidity of the vitreous humor, but no apparent lesion in the texture of the choroid; can barely read ordinary type.

Iridectomy was performed on the 25th July, 1856, on the right eye; the only reactive symptom was a slight effusion of blood in the anterior chamber, the absorption of which was slow, and a greater turbidty than usual of the aqueous humor. On the 8th of August, the time of the patient's leaving, there was still slight turbidity of the aqueous humor, the iris, however, was of a brilliant color, the new pupil was still, in part, obstructed, but the opening was sufficiently large to admit of free communication between the anterior and posterior chamber. The globe remained still somewhat softened; cephalalgia had disappeared; sight was not improved in the right eye (the one operated on), but the patient could read distinctly the smallest type with the left.

I had an opportunity of seeing the patient fifteen months after the operation, at which time the condition of vision was the same in each eye as described above; the pains about the head had not returned; the patient was once more enabled to resume her ordinary occupations with her left eye; the firmness of the right eye had increased, and the slight turbidity of the vitreous humor which had been observed in the left eye was sensibly diminished.

Results of the Operation—Arrestation of the atrophy of the right eye, and annihilation of the morbid sympathetic congestion, which had been communicated from the diseased to the comparatively healthy eye.

Obs. III, IV, and V, cases similar to those mentioned above; results of operation perfectly satisfactory (translator).

Obs. VI. *Irido-choroiditis of both eyes, Chronic.*

The history of this disease being of an extraordinary interest, on account of the astonishing and remarkable modifications of the whole organism, resulting from the operation, modifications produced by the cessation of the morbid sympathetic radiations, I have thought it best to introduce a verbatim account of the previous history of the case, furnished me by my friend Dr. Hirsch, of Binger, who was kind enough to direct the patient to me.

"Mad. A. G. DeB., aged 47 years, having always enjoyed excellent health, was married 21 years ago, and has since had five children. Immediately before her marriage she was re-vaccinated, and (as a consequence ?)* an eruption of the scalp developed itself. Soon after her marriage she was affected with herpés of the pudendum. To this circumstance, together with the fact of her inhabiting a neighborhood much exposed to cold, the patient attributed the origin of her eye affection, which occured soon after her first delivery, and which was first signalized by notable diminution of vision. Since this epoch, that is to say for about 18 years, vision of both eyes, but principally that of the left, has been gradually becoming more feeble, and, when I saw the patient in 1844, the two eyes presented most unequivocal symptoms of chronic irido-choroiditis. Other pathological phenomena accompanied the diminution of vision, frequently within the last ten years, bringing the patient to the verge of despair. The disease had resisted a great variety of treatment.

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* The translator thinks it highly probable Mrs. A. G. DeB. had been partaking of meat before grace, and that the eruption, and what is called herpes, was the result thereof, and not to be attributed to *re-vaccination*—in other words the case answers well to the phenomena which characterize syphilitic iritis, with its consequent choroidial complication.

"At irregular periods, principally during the winter months, sometimes after taking cold, but at times without any apparent cause, violent inflammation, accompanied with conjunctivitis, flow of tears, chemosis obstinate, blephirospasm, and insupportable ocular neuralgic pains, extending frequently to the top of the head, notwithstanding the most intense pains in the eyes and forehead; portions only of the conjunctiva became affected with sanguinious injection; during one winter there was spasmodic cough without expectoration (syphilitic affection of larynx (?)—Translator), accesses of which would last for hours without cessation."

At various periods there existed cramp on one side of the face, which continued sometimes without interruption, for an entire day; at other times the patient was taken with vertigo, strong enough to threaten a fall. On various occasions an incomplete paralysis of the left lower extremity suddenly appeared, this always happening on her moving up or down stairs.

The next year she was suddenly, whilst at dinner, affected with hemiplegia, or rather with a state bordering on paralysis of the right leg and arm, which continued for a few days, and then entirely disappeared. A month since she was suddenly attacked with a severe vertigo, accompanied with vomiting, ringing in the ears, followed by extreme deafness, which lasted ten days, disappearing gradually. Pending the duration of these various symptoms, the patient was tormented by an obstinate diarrhœa, which resisted all the remedial measures, ceased from time to time little by little, to make its appearance again, without any apparent cause.

Although I could hardly persuade myself that all these phenomena were derived from sympathetic irritation of the iridian and ciliary nerves, yet I could not believe in the existence of an idiopathic affection of a central organ. I had already met with patients, especially amongst females, who assured me that their nervous system, formerly so easily impressed, was by the operation remarkably quieted. I argued that in the present case an equally happy result might be obtained in the same way, and I expressed myself in that sense to my friend Dr. Hirsch.

State at the time of admission in the institution. *Right eye*—Slight injection of the conjunctiva and subconjunctival cellular tissue; some isolated veins ramifying upon the sclerotic; cornea transparent; aqueous homour somewhat turbid; iris discolored; pupillary margin entirely adherent to the anterior capsule; the centre of the pupil smoky; sight very much impaired, movements of the hands at a few feet distance still perceived.

Left eye—All the symptoms above described existed, but in a less degree. The pupillary margin was still movable upon its superior border, and vision sufficient to distinguish three-quarter inch type.

Iridectomy was performed on the 3d of July, 1857, on both eyes, upon the internal side, and as no symptoms of reäction followed, the patient was able to move about without dressings after the fifth day. Sight was only slightly improved; since this time no inflammatory symptoms manifested themselves, and in answer to a letter written by me to Dr. Hirsch concerning the health of the patient, I received a reply, which I here subjoin verbatim: "Nevertheless, since the operation, which was so fortunately performed, all the previous, numerous symptoms have disappeared. Sight, if not positively improved, has at least become somewhat stronger. The conjunctivitis with all its unpleasant accompaniaments has entirely disappeared; all the neuralgic, spasmodic, paralytic symptoms have ceased, the patient is more contented—in fine it is evident that all the group of bad symptoms which appeared to be attributable to constitutional derangement were only reflex phenomena, irradiating from the system of ciliary and optic nerves to the auditory, vagus, facial, the spinal cord and its peripheral nerves.

OBS. VII. *Sub-acute irido-choroiditis and superficial keratitis of the right eye, and opacity of the cornea of the left.*

K. B. Z., aged thirty years, servant, had been previously affected with frequent opthalmias, as is evidenced by the obscuration of the cornea, but was otherwise healthy and menstruated regularly. She had suffered for three weeks previous to her entering into the institution, with an inflammation of the right eye. She said that her vision had already been impaired previous to this last attack.

State of the right eye—Upon her entry on the 17th of September, the conjunctiva appeared red; numerous vessels emerging from this membrane, traversed the whole of the cornea and communicated to it a hazy aspect; these vessels formed concentric rays around some points more hazy than the rest of the cornea, particularly towards the superior and internal segment. As far as the state of the cornea permitted it, the aqueous humor appeared turbid, and the iris formerly blue, presented a greenish hue, and was adherent by the pupillary margin to the anterior capsule; upon the application of a solution of atropine to the eye, the pupil underwent dilatation but in a few points. The subconjunctival tissue, as well as the sclerotic was injected, and the latter was of a pale rose color; vision was diminished to such a degree that the patient was unable to count the fingers at the distance of an inch. The eye was photophobic to a great degree; there existed continued lacrymation, dull pain upon the right side of the head.

Prescription.—Pills of bi-chloride of mercury, ten leeches to the temple, mustard foot baths, applications of atropine. On the 18th of September slight amendment of the inflammatory symptoms occurred. A light compress was applied on account of superficial keratitis.

From the 18th to the 30th of September there was no amelioration in spite of continued antiphlogistic treatment. Upon the 1st of October there was diminution of vision and softness of the globe to the touch, attended by an exacerbation of the inflammatory symptoms. Upon the 7th of October, although an energetic antiphlogistic treatment had been still continued, and an application of a seton made to the neck, all inflammatory symptoms described already as great, existed to still higher degree. Upon the sclerotic, injected of a pale rose color, the veins were much more developed. The anterior chamber was entirely flattened, the pupil was entirely immovable, its margin being attached to anterior capsule, the globe was considerably diminished in size, and in consequence the superior eyelid descended to the middle of the pupil. There was a mere perception of light, although the opacity of the cornea had not progressed, and the centre of the pupil was free from exudation. In the presence of this condition, there was no doubt that the principal lesion was localized in the choroid and cilliary body. It was only after mature reflection that I decided to practice iridectomy in this case. I had never yet ventured to attempt an operation in a choroiditis of a character so acute, and moreover in the present case, the opening in the anterior chamber offered great difficulties on account of a very marked atrophy and the slight depth of the anterior chamber.

Nevertheless the conviction, that a continuation of the treatment employed would not prevent the progressing atrophy, decided me to excise a portion of the inferior segment of the iris on the 8th of October. Notwithstanding my fears, the operation progressed well, giving rise to a slight evacuation of aqueous humor, somewhat turbid, and two days after the operation I had the satisfaction of seeing the inflammation reduced, and also of perceiving the disappearance of the opacity of the cornea and the appearance of a clear and black pupil. Photophobia, lacrymation and orbital pains had also disappeared. The progress of improvement in vision was slower. On the 28th of October, after having been placed upon a mild antiphlogistic treatment, the patient was able to count the fingers at the distance of eight or nine inches, and on the 13th of November she could read one-quarter inch type, and with the aid of glasses, preventing the diffusion of luminous rays, even much smaller type. The result of the operation exceeded anything that I had anticipated. I had hardly hoped even to preserve the shape of the globe, but obtained not only this, but a complete disappearance of the inflammation and the entire reëstablishment of vision.

Obs. VIII. *Chronic irido-choroiditis of the left eye, terminating in amaurosis and chronic iritis of the right eye.*

Mad. D. de L—s, aged fifty years, had suffered for some years past with a rheumatic affection of the superior and inferior extremities. Five years since, and up to the present time, she had suffered with frequent attacks of opthalmia. I was consulted for the first time in the spring of 1856; there was then an inflammation of both eyes, which had existed for a short time, attended by a turbidity of the aqueous humor of the left eye, and a total adherence of the pupillary margin, and such an alteration of vision in that eye that the patient was unable to count her fingers at the distance of two or three inches; in the right eye there was only a slight adherence of the pupillary margin to the anterior capsule. I advised an antiphlogistic and mild derivative treatment, and requested the patient to present herself every four weeks, that I might be enabled to perform iridectomy, should this treatment fail. Fearing the operation, the patient did not present herself but once, because she thought herself benefited. During the winter there existed but some slight inflammatory symptoms. In August of 1857, the patient was exposed during a night to a considerable cold, and was taken suddenly with a violent inflammation of the left eye, which was followed by a total loss of vision (paralysis of the retina). The other eye became since this time also more enfeebled, and the patient suffered likewise with continued headache.

I was again consulted on the 15th October, and was then fully convinced of the fatal termination of chronic irido-choroiditis, which would certainly have been prevented had an operation been performed. The left eye presented a pupil entirely occluded, a state which followed the last inflammation, attended with a paralysis of the retina.

The right eye possessed still tolerable vision (the patient could read one-quarter inch type): Because the morbid exudations had progressed no further than the pupillary margin of the iris. There existed a turbid aqueous humor, and some photophobia, attended with permament headache; thus the disease in right eye threatened a termination even as fatal as that of the left.

The operation was performed as soon as possible on both eyes, it being particularly requested by the patient that the left eye should be operated upon, although no improvement in vision could be expected to result in an eye already amaurotic. As a result of the operation, there was cessation of the pains in the head, which have never returned, a slight improvement in the vision of the right eye, and finally a complete suspension of inflammatory symptoms.

It follows from the observations which we have just related, that iridectomy is one of the best means to be opposed to those cases in which we have unfortunately too signally failed by every other treatment. Though we cannot deny that many cases of irido-choroiditis have been arrested by a long continued treatment, and all the combined antiphlogestic, alterative and derivative methods, though also we have seen here and there cases in which the injury done to the vision by membranous exudations in the field of the pupil, have partly disappeared, in consequence of the folds which have formed in these very membranes. It is on the other hand but too true, that we rarely have the luck of seeing vision restored to its normal state; after each new exacerbation a clearness of the image diminishes, and objects appear covered with a cloud, which constantly grows darker. Relapses are inevitable, when we do not succeed by an appropriate treatment in destroying those adhesions which, from simple iritis, generally take place between the pupillary margin and anterior capsule. In many cases we can recognize with certainty, that the cause of the successive relapses is the same as that which produced the first attack, such as cold, syphilis, etc., but in other numerous cases we seek in vain for the cause, if we do not regard as such, the inability of the iris to obey the reflex action attendant upon the introduction of luminous rays.

What must be the suffering of the iris which, affected always in a different degree, according to the intensity of the light, forced to contract suddenly and to dilate an instant after, when it is constrained by a permanent adherence to the anterior capsule? A continued irritation, a permanent hyperemia with congestion, and in the second place a secretion of inflammatory exudations certainly ought to follow as the result of such a state of things. Now, when an eye having been once affected, and having recovered from iritis, but with posterior synechia, retains within itself cause for a relapse, it is not astonishing that following the new exudations there should exist complete adherence of the pupillary margin, and as a consequence a total separation of the anterior from the posterior chamber.

From this time the eye presents a condition rather more favorable, since the contractions of the iris do not occur with so much force as formerly; but, unfortunately, the contractions of the muscular fibres are always governed by the impressions of light, sufficiently active to cause inflammatory exudation when once commenced, and thereby threaten the eye with a greater evil, if once arrived to such a degree. The exudation always collects in the greatest quantities in the posterior chamber, which, as a sequel of the protuberance of the iris, forming as it were a funnel, acquires double and sometimes triple of its ordinary capacity. On the other hand, the iris, with the exception of its pupillary margin, retained behind by its adherence, is every where in contact with the cornea, so that the anterior chamber no longer exists save in its least portion in its centre. The tissue of the iris is doubly hurried to destruction by a deposit of lymph, occurring behind it; the most plastic portion of which is found upon the uvea, under the form of organized membrane, and the most serous, causes a permanent distension of the posterior chamber. It is under these circumstances that we frequently observe instead of the iris, in a case where the progress of the disease has been very slow, a buffy exudation upon which, there may be seen the remains of an atrophied iris.

Such are about the appreciable lesions of the eye in this pathological view. But those which ought to occupy the first place, and which threaten more immediate danger to the organ, are found in the choroid, where the malady from this time forward is always progressing.

Although we must admit that an iritis of some intensity causes the choroidal tissue to take part in the disease, and that thus a sub-acute choroiditis follows upon the pupillary exudations, again complicating still more these lesions of vision, nevertheless we must say that the prognosis really becomes unfavorable, only when the pupil is totally occluded—for then the choroiditis attains its greatest intensity. The globe is very much distended by exuditory deposits in the posterior chamber; the occlusion of the pupil obstructs the passage of the humor from the anterior to the posterior, and the cornea much more extensible than the sclerotic, the structure of which is more fibrous, no longer takes its part of the intra-ocular pressure, all of which is sustained by the parts situated about the sclerotic and iris.

As the result of obstruction of the circulation there exists upon the choroid a serous and sanguineous aspect; there also occurs sometimes rupture of the vessels, and a capillary apoplexy of that membrane. The nutrition of the retina, like that of the vitreous body, is interfered with. The vitreous humor softens and becomes turbid either generally or in part by the existence of floating specs, which are to be considered as the result of slight hemorrhages taking place in the choroidean tissue and traversing the retina. Finally, when the disease has progressed to such a degree, there occurs either a sudden paralysis of the retina or a commencement of atrophy of the globe, which terminates the scene.

In this last case it is to be remarked that the firmness of the globe, at first apparently much augmented, diminishes progressively as the inflammatory phenomena becomes less. The perception of vision which existed as still tolerable up to this time, decreases from day to day, and often times this diminution progresses as it were from the periphery to the centre of the field of vision. The cornea acquires a dull hue; the superior eye lid becomes relaxed; finally, after a short time the eye suffers complete atrophy and a total loss of vision; whilst these changes are taking place, the patient suffers every day a piercing and throbbing pain in the corresponding portion of the head, and which taking its origin in the eye extends to the frontal and superior maxillary bones, sometimes, also, the patient complains of a pain in the back of the head, finally, all those symtoms resulting from a reflex nervous action of the cilliary nerves.

When the disease has reached this point, the means of restoring vision were, until lately, unknown—the eye was considered lost; but now the excision of a portion of the iris is followed by a success the most flattering, as is proved in the foregoing observations. Most often there results a cessation of inflammatory symptoms and an improvement of vision, but sometimes only a slight relief; a repetition of the operation was only called for in a very few cases.

The great services rendered in introducing this method into practice by Dr. Von Graefe will never be sufficiently appreciated. It is a fact which will be an epoch in the annals of science to have had the boldness to undertake on an organ suffering with inflammation, an operation which, twenty-five years ago, no surgeon would have dared to perform on an eye free from inflammatory symptoms without taking the most scrupulous precautions.

With almost all the patients operated upon, with the exception of a few, upon whom the opertion was repeated once or twice, the inflammation immediately diminished; with most it had entirely vanished after some days; finally, it was only in a small number, and those advanced cases, that inflammatory irritation persisted so long as a few weeks, and then entirely disappeared. It was the same with the neuralgic pains, their disappearance being simultaneous with the inflammatory symptoms, and in those cases in which the operation has not been performed during the period of exacerbation, the neuralgic pains which existed have disappeared immediately after the performance of iridectomy.

Now if we direct our attention to the results of the operations as far as concerns vision, we remark that in several cases it has not been improved, or that improvement has been slow, but in no case has a diminution been observed. This last result has only been perceived in inveterate cases in which the faculty of perception and transmission has been too much injured by a continued intra-ocular compression; which, however, does not surprise when the delicacy of the construction of the organ is considered. In all cases in which the disease was recent, and in which the impairment of vision was dependent on the turbidity of the aqueous humor, or upon the hyperæmia of the choroid, and in which the pupillary exudations were not numerous, a vision as perfect as in the normal state has sometimes been a result of the operation. (See Obs. 1 and 3.) As a farther consequence in all cases, a very advantageous modification is observed in the tissue of the iris. In those cases where only a simple congestion existed, this alteration disappeared in the first few days; in those where, on account of the compression from the posterior chamber, the iridian tissue itself had become attenuated, a manifest improvement only took place in a few weeks. But in certain cases in which it could hardly be expected, in those especially where there existed a membranous exudation already formed behind the iris, an amelioration also followed, since by the return of the natural color of the iris, owing to a reëstablishment of circulation and of the secretion of the pigment, the eye has regained its brilliancy and vivacity.

Although the objective demonstration of sensible modification in the choroidian tissue cannot be obtained by the use of the opthalmoscope, because it is impossible to lighten the interior of the eye, yet we may suppose that owing to the analogy of the organism of the tissue of the choroid to that of the iris, that changes take place equally in the same proportion.

As it is positive that by an excision of a portion of the iris the progress of inflammation of this membrane is checked, it is natural that a physiological reason of this is looked for, it has to be stated that until now nothing analagous to this has been cited among curative means; a circumstance which supports the assertion so often put forth, that the pathological affections of the eyes are to be considered in the same light as the diseases of other organs, should they undergo particular modifications, depending upon its peculiar anatomic structure.

By excision of a portion of the iris, is obtained: 1st, A flowing out of the aqueous humor of the anterior chamber. 2d, A diminution of the secreting surface of the iris. 3d, A slight hemorrhage following the excision of the iridian vessels. 4th, A reëstablishment of communication between the anterior and posterior chambers. 5th, A flowing out of the exudation, mostly fluid, which is found in the posterior chamber, and which, from the beginning of its accumulation, by its pressure outwards, has been the first cause of irritation, and consequently become the cause of the compression of the iris. As an immediate consequence of the above there follows a more free and regular circulation in the parenchyma of the iris. The phenomena of irritation, as well as those occasioned by the compression, vanish.

Soon a clear aqueous humor occupies both chambers; the iris itself, until then uncolored (in a few cases on account of hyperæmia, and in others more advanced as a sequel of a disappearance of the pigment), regains its former color and normal turgesence. It becomes uniformly attached to the anterior capsule or more frequently it becomes a veil perpendicularly suspended, the surface of which offering a smooth plane, is equally balanced on all sides in the aqueous humor.

In the second place by this excision is obtained the suppression of the great pressure against the internal membranes of the globe. The morbid secretion produced by the posterior surface of the iris and the cilliary body, which now can pass into the anterior chamber and thus permits the cornea to support its portion of the intra-ocular pressure.

But, more than all, the retina has been relieved from the pressure, from which, on account of its delicate constitution, it has suffered most. It begins to be more affected by the rays of light; and amblyopia disappears. The vitrous body, and the lens, which has been displaced by an abnormal pressure, more easily appropriate the nutritive elements which are carried to them.

The reëstablishment of the communication between the anterior and posterior chambers thus diminish the intra-ocular pressure in a manner purely mechanical; that circumstance alone, nevertheless, does not sufficiently explain the cessation of phlegmasia, of which it only causes the disappearance of the consequences.

The true propriety of iridectomy as an antiphlogistic remedy is only to be explained by the study of the anatomic disposition of the vascular systems of the iris and choroid.

The arterial blood of the iris is furnished for the most part, by the posterior ciliary arteries, which pierce the sclerotic at the posterior point of the globe, thence are spread out upon that membrane and the choroid, diverging upon their arrival at the ciliary body, they penetrate the tissue of the iridien veil. Besides the vessels arising from the long posterior ciliary arteries, the short posterior ciliary arteries and the anterior ciliary send numerous ramifications to the parenchyma of the iris.

The venous blood is carried off, 1st. In a small quantity, by little veins corresponding with the anterior ciliary arteries. 2d. In a very small quantity by those small veins which accompany the long posterior arteries. And 3rdly. In the greatest quantity, by the veins having a corresponding origin with the short posterior arteries, which empty their contents in the winding veins of the choroid (vasa vorticosa).

The choroid is much richer of venous than arterial blood. By an excision of a portion of the iris, the return of a quantity of venous blood is prevented, greater in proportion of the size of the portion excised. In other words iridectomy diminishes the quantity of venous blood in the choroid, and that diminution must necessarily be in proportion of the excised part.

(To be continued.)

EDITORIAL AND MISCELLANEOUS.

DISPENSARIES AND DISPENSARY PATIENTS.

Our readers will find among our original articles an interesting letter from Dr. Fenner, in which our colleague gives us many interesting items on the hospitals of London. One feature connected with these institutions is especially worthy of notice; we mean the gratuitous medical advice afforded to the indigent and suffering. Indeed, the arrangements by which relief is afforded, without stint, to thousands of individuals, the talent employed in this mission of mercy; men who from contemplating the squalid forms of the most wretched of humanity, pass at once to the gilded mansions of the princely and wealthy, show us how truly extremes do meet. The rag man and the Duke have the same medical counselor, and the eminent physician, or skillful surgeon, whose fee the industrious middle classes would hardly dare to encounter, are thus at the service of those who oft times scarce appreciate the boon. Truly, as Dr. Fenner says, the poor of London are the pets of the rich. It is true that some objectionable points may be traced in this system. Some of the London medical journals cry out against the system as an abuse. They assert that many individuals who could well afford to pay the more humble physician, or even the dispensing apothecary, find it much more convenient to get better advice and gratuitous medicines. But after all, this is erring on the safe side, and better that ten knaves should impose upon the charity of the good and wealthy, than that one poor fellow being should die in his garret for want of timely advice or assistance.

We have recurred to this item in our colleague's letter, as a bright feature amid all the misery and destitution which seem to be the lot of the laboring classes in that great metropolis. In favor of this home charity we certainly can better forgive the more mawkish philanthropy, which seeks its objects among far distant savages, or interferes with the institutions of kindred countries.

And now, if we can compare small things to great, we congratulate ourselves that the Dispensary established by the New Orleans School of Medicine has for its prototype such magnificent results as those chronicled above. Though started but yesterday, so to speak, it has already afforded relief to over twelve thousand patients, embracing almost every variety of disease, and subjects from every clime. Indeed, whereas, it is probable that in London ninety-nine out of every hundred patients are British born subjects, and the result therefore a home charity; with us, on the contrary, the recipients of our bounty are in the same ratio foreigners. In the Charity Hospital, and still less at the Dispensary, Americans seldom apply for relief; the few who occasionally present themselves, generally wish to have an impartial examination for some fancied or real thoracic or cardiac disease, and sometimes for minor surgical operations. We need scarcely say that those who outnumber all others are the sons of the Emerald Isle—and curious specimens they are at times. Many have had frequent and long continued battles with King Alcohol, and demand with urgency an immediate repeal of the union which they have formed with the grim monarch; a perfect fusion of the two belligerent powers seems to result, nevertheles, each one still cliaming the mastery, though merged into one. In many cases those patients of ours present themselves with maladies totally unknown in the nosological catalogue, and symptoms which would defy the diagnostic powers of a Sydenham. The truth seems to be that in many cases they have made up their minds to have a dose of medicine, not that they require it, but because it costs nothing. Quaint and curious certainly are many of these phases of humanity, and they afford a ready insight into the nature of that being called man. They exemplify that passion which some people have of dosing themselves, and for using all kinds of salves and embrocations when simple water would be infinitely better. Indeed, in many cases, their disappointment seemed to be so great that we have in pity granted their prayer, lest their imagination undo the simpler and better means we would have urged. Faith, we conclude, is a curative agent, and many a pill and unguent derives its virtues from this undying source. Indeed, if there be any.thing we have envied the disciples of Hanneman, it is the magic power they seem to exercise over their clients, suspending at once, as if by mesmerism, all reason and judgment. But after all, if we had the choice, we should not look for blind faith in our clients ; we should rather prefer the enlightened and well balanced mind, which understands the rationale of a treatment, and can appreciate the skill which combats physical ills with physical remedies.

HEALTH OF THE CITY.—Our city continues remarkably healthy, and we have every reason to think that we shall escape this year the visitation of our dreaded scourge, yellow fever. This being the case we shall expect to see in New Orleans over six hundred medical students, and, in a few more years, our schools will rival in numbers those of Philadelphia, as they now surpass them in clinical advantages.

BOOKS AND PAMPHLETS RECEIVED.

Elements of Medicine: a compendious view of Pathology and Therapeutics, or the History and Treatment of Diseases. By SAMUEL HENRY DICKSON, M. D, L. L. D., Professor of Practice of Physic in the Jefferson Medical College, Philadelphia, etc., etc. Second edition, revised. Philadelphia: Blanchard & Lea. 1859.

We have just received from the publishers the above volume; we intend to notice it more fully hereafter. We can only say for the present that the work is written in a clear and attractive style; that it shows on every page the vast learning and industry of the author, and, judging from Prof. Dickson's well known talent and experience, we doubt not it will prove a good fortune to the practitioner as well as to the student of medicine. It is worthy of ranking side by side with Wood, and Watson's Practice, and is, perhaps for a southern practitioner, superior to both.

Anatomy, Descriptive and Surgical. By HENRY GRAY, F. R. S., Lecturer on Anatomy at St. George's Hospital. With three hundred and and sixty-three engravings on wood. Philadelphia: Blanchard & Lea. 1859.

We have already given our opinion of this book elsewhere, and can only repeat that we consider it the best text-book on Anatomy extant. The text seems to be very full, clear and explicit; at the same time that the engravings with which the book is lavishly ornamented are got up on a new plan; they are larger than in ordinary text-books with the name written on the part itself so that the student can find no better guide for practical dissections as well as for study in the closet. The teacher and the student may both congratulate themselves on this acquisition. We owe to the enterprising publishers, Messrs. Blanchard & Lea, a debt of gratitude for this handsome work, certainly the most beautiful specimen hitherto issued from the American Medical Press.

Woman: Her Diseases and Remedies. A Series of Letters to his Class. By CHARLES D. MEIGS, M. D., Professor of Midwifery and the Diseases of Women and Children in the Jefferson Medical College, at Philadelphia. Second edition, revised and enlarged. Philadelphia: Blanchard & Lea. 1859.

A book two well known to need any praise at our hands; suffice it for us ,to say here, that the author has recast many important portions of the work so as to make it more useful and pleasing to the reader.

On Poisons in Relation to Medical Jurisprudence and Medicine. By ALFRED SWAINE TAYLOR, M. D., F. R. S, Professor of Medical Jurisprudence and Chemistry, in Guy's Hospital Second American, from the second and revised London edition. Philadelphia: Blanchard & Lea. 1859.

The best treatise now extant on this important subject.

Urinary Deposits, their Diagnosis, Pathology and Therapeutical Indications. By GOLDING BIRD, M. D., F. R. S. Edited by EDMUND LLOYD BIRKETT, M. D A new American, from the fifth London edition. With eighty illustrations on wood. Philadelphia: Blanchard & Lea. 1859.

A new and beautiful edition of this invaluable work. The author has treated his subject in such a lucid manner, that the practitioner can with a little practice, and a few simple instruments, derive the most useful assistance in the diagnosis and treatment of urinary diseases.

Contributions to Midwifery and Diseases of Women and Children, with a Report on the Progress of Obstetrics, and Uterine and Infantile Pathology in 1858. BY E. NOEGGERATH, M. D., and A. JACOBS, M. D. New York: Baillieré Brothers. 1859.

We shall notice this valuable work in our next number, as it appears to contain much new matter on this important branch of medicine.

A Manual of Elementary Chemistry, Theoretical and Practical. By GEORGE FOWNES, F. R. S. From the seventh and corrected London edition. Edited by ROBERT BRIDGES, M. D, Professor of Chemistry in the Philadelphia College of Pharmacy. Philadelphia: Blanchard & Lea. 1859.

We have here a new edition of this excellent Manual, and it will be found to represent very well the present state of this ever growing science. And yet we must take this occasion to state that neither this, nor any other work we possess on the subject, comes up to our idea of a text book on chemistry for medical students. They are all intended for chemists, and therefore contain a great deal of matter totally unnecessary to the medical practitioner—presenting to the student an immense array of facts, figures and formulæ which he can neither memorize nor comprehend. The student perpetually asks the question, what is the use of all this? and he neither sees its object nor its application. On the other hand, the real and useful applications of chemistry to medicine and therapeutics are scattered through many different treatises, and totally ignored in professed works on chemistry. We know of no work in French or English in which we find those analytical methods and tests which are so useful to the student, side by side, as they should be, with their physiological and therapeutical applications, and still less their connection with texicology and medical jurisprudence. Yet these are exactly what the student wants. We say, then, that a text book of medical chemistry is yet a desideratum. We hope soon, however, to see this void filled by a work now nearly completed by Dr. I. L. Crawcour, Professor of Chemistry and Medical Jurisprudence in the New Orleans School of Medicine. We have carefully perused the manuscript to which the author has devoted all the leisure moments of his profession, and we have there found, fully realized, the requisites we have mentioned above. Dr. Crawcour, being a practising physician, as well as a practical chemist, has felt the want of a treatise which would guide the student of medicine and assist the practitioner. His work, which is now nearly completed, is intended as a text book for his class; but we venture to predict that it will prove useful and interesting to all those who value chemistry and its application to medicine.

Pamphlets received.

Transactions of the New Jersey State Medical Society for 1859. pp. 75.

Introductory Address to the fifth Course of Lectures in the Atlanta Medical College. By Jos. P. Logan, M. D., Prof. of Physiology and Diseases of Women and Children in the Atlanta Medical College. pp. 30.

Annual Catalogue and Announcement of the St. Louis Medical College, session 1859–60. pp. 16.

Science and Success, a Valedictory Address delivered to the Medical Graduates of Harvard University, at the College in Boston, March 9, 1859. By Henry Jacob Bigelow, M. D. pp. 24

Report of the Committee of the City Council, Charleston, S. C., on the Origin and Diffusion of the Yellow Fever in Charleston in the Summer of 1858. Printed by order of the Council. pp. 68.

Description of a new Hysteratome for the cure of Dysmenorrhœa. Invented by Dr. O. A. White, of Charleston, S. C. pp. 7.

A Practical Treatise on the Diseases of Infancy and Childhood. By T. H. Tanner, M. D., F. L. S. Philadelphia: Lindsay & Blakiston. 1859.

This little volume containing about four hundred and fifty small octavo pages presents a complete treatise on the Diseases of Infants and Children; it is concisely but clearly written, and is a more useful book than many of its larger and more pretentious rivals.

EXCERPTA.

Congenital Fissure of the Sternum.—*Remarks on the Case of Mr. E. A. Groux.* By Austin Flint, M. D., Prof. of Clinical Medicine, etc., in the New Orleans School of Medicine.—With the general features of the case of congenital fissure of the sternum presented in the person of Mr. Groux, most members of the medical profession in this country are sufficiently acquainted, through various publications in the medical journals. Mr. Groux has visited most of the larger cities of the Union, and afforded an opportunity for personal examination to a large number. The fissure is situated in the median line, and extends the whole length of the sternum. When the muscles of the chest are at rest, the fissure, near the upper extremity of the bone, is an inch in width; but by bringing the pectoralis muscles into strong action, the width is increased to two inches.

In this fissure is a pulsating tumor, the pulsations visible at a considerable distance, as well as perceived by the touch. "The pulsations of the tumor extend from the second to the fourth intercostal space, and from the median line to the left edge of the fissure." Above this tumor, by pressing the finger firmly on the median line, a pulsation is felt, but not seen. The feeling is that of a wave, or current. The phenomena connected with these two pulsating bodies invest this case with interest. It is also interesting as furnishing phenomena relating to the lungs and the action of certain muscles. But I propose, in the following remarks, to confine myself to the phenomena which have relation to the action of the heart.

Of the two pulsating bodies, that which is situated uppermost, and felt, not seen, is clearly a large artery. For the sake of distinction, I will call the pulsation here *arterial.* The pulsating body situated below, which is both seen and felt, is evidently some portion of the heart. This, however, is a point to be substantiated, for some distinguished observers have thought that it is the aorta. I will distinguish the pulsation here as *cardiac.* We have, then, to consider phenomena connected with, *first*, a *cardiac*, and *second*, an *arterial* pulsation, perceptible in the fissure of Mr. Groux.

The Cardiac Pulsation.—The first point to be settled is, that this pulsation is cardiac—in other words, that the tumor is, in reality, a portion of the heart. The demonstration of this is as follows: The pulsation situated above this tumor is undoubtedly arterial. This is not denied by any one. Now, if the lower pulsation be also arterial, it should occur synchronously with the upper pulsation. That the two pulsations are not synchronous is apparent to the touch. Their non-synchronism is also shown by other methods, viz.: by means of the sphygmoscope and the electro-magnetic machine, to be referred to presently. Other facts also show that the lower pulsating body is not arterial; but the fact which has been stated is demonstrative, and hence additional evidence is not required. If not arterial, it must be cardiac.

Assuming this tumor to be cardiac, a difference of opinion exists among the numerous persons who have examined the case, as to the portion of the heart which constitutes it. The question lies between the right auricle and the right ventricle. It is sufficiently clear from the situation of the tumor, and its relations to the point of apex-beat, that it must be a portion of either the right auricle or the right ventricle. Able observers differ as to this question. The greater number think that the pulsating body is auricular. The committee appointed by the New York Pathological Society to report on the case, consisting of Professors Dalton, Metcalfe and Peaslee, are of opinion that this tumor is a portion of the right ventricle. The committee, in their report, state the reasons for this opinion, and the distinguished names of the gentlemen who compose this committee, lend to the opinion great weight. In endeavoring to arrive at a conclusion, independently of the opinions of others, the observable phenomena which bear upon the question, are to be considered. With regard to these phenomena, the discrepancy which exists among different observers is remarkable. There is a singular want of agreement concerning points of direct and simple observation. With this contradictory testimony, one is compelled to trust to his own observations, however much he may be disposed to defer to the observations of others. It is proper for me to add, that my opportunity for examining the case of Mr. Groux was brief, being mainly confined to a single sitting.

Assuming that the cardiac pulsation is ventricular, it should occur synchronously with the apex-beat, or the latter should follow after an interval scarcely appreciable. Now the pulsation over the tumor and the impulse over the apex are not synchronous. A distinct interval is perceived by the touch. This non-synchronysm is manifested to the eye by means of the simple and beautiful instrument lately devised by Dr. J. Scott Alison, of London, called the sphygmoscope. It is also shown by the ingenious application of electro-magnetism in a machine constructed after the suggestion of Dr. J. B. Upham, of Boston. This machine is so contrived that slight movements communicated to instruments analogous to the sphygmoscope of Dr. Alison, break the electric current, and are indicated by the strokes of hammers on small bells differing in tone, so that appreciable intervals between two movements are clearly indicated to the ear.* By these three methods, viz: the touch, the sphygmoscope and the electro-magnetic machine, the synchronism or non-synchronism of different movements or impulses is tested by evidence derived from three senses: viz: feeling, seeing and hearing. As regards the point under consideration, the fact of non-synchronism is appreciable by each of these senses, applied in the modes just stated. If the cardiac pulsation be ventricular, then it must be admitted that a distinctly appreciable interval exists between the contraction of the right ventricle and the apex-beat; in other words, that the two ventricles do not contract in perfect unison, the apex-beat being considered as representing the contraction of the left ventricle. The length of the interval between the pulsation of the tumor and the apex-beat has a bearing on the point just stated. Dr. Upham, by means of the application of electro-magnetism, in connection with the chronographic apparatus at the Cambridge observatory, ascertained that this interval is 38-1000 of the time occupied by the beat of the heart.†

Assuming the cardiac pulsation to be auricular, it should not occur synchronously with the apex-beat. The concontraction of the auricles, as shown by vivisections, precedes, by a brief interval, the ventricular contraction. This is precisely the relation which apparently exists between the pulsation of the cardiac tumor, in the case of Mr. Groux, and the systolic impulse over the apex.

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* For an account of this machine and observations made with it in the case of Mr. Groux, see paper by Dr. Upham, entitled "Some Account of the Recent Experiments made in connection with the case of M. Groux," read before the Boston Society for medical improvement, and communicated to the Boston Medical and Surgical Journal.

† *Vide* paper by Dr. Upham, for an account of the novel and interesting experiments with reference to this question.

An experiment performed by Mr. Groux, with reference to the point under consideration, consists in attaching two small feathers, by means of wax, to the chest, one directly over the cardiac tumor, and the other at the lower extremity of the fissure. The feather placed over the tumor presents a rotary motion, and that placed below is motionless, in tranquil breathing. But on taking a deep inspiration, by which the heart is moved downward and forward (as shown by the late experiments on the cadaver, by Dr. Da Costa, of Philadelphia), the lower, as well as the upper feather, presents a rotary motion. This experiment is, however, not of much value, for it is difficult to determine the existence or absence of synchronism. The two feathers evidently do not move in the same direction, but this is not sufficient to prove that the movement of each is not due to the systole of the right ventricle.

Another experiment performed by Mr. Groux is perhaps open to fallacy. On placing one sphygmoscope over the point of apex-beat, and another above, over the right ventricle, two movements are produced, which are synchronous. This is intended to prove that the contraction of the right ventricle and the apex-beat are absolutely simultaneous, and hence that the pulsation of the cardiac tumor cannot be ventricular. The liability to fallacy is this: both sphygmoscopes may, possibly, be affected by the apex-beat; in other words, the movement communicated to the upper sphygmoscope, as well as to the lower, may be due to the impulsion of the apex of the heart against the thoracic walls.

Again: assuming that the cardiac pulsation in the fissure is ventricular, it should be synchronous with the arterial pulsation above; at all events, a distinct interval should not separate the two pulsations. The touch, however, suffices to show that they are not synchronous, but that a distinct interval occurs between them. On the other hand, the arterial pulsation and the apex-beat are synchronous, as determined by the touch.

The foregoing facts appear to demonstrate that the cardiac tumor is a portion of the right auricle, and not of the right ventricle. Another method of investigation with reference to this question, consists in determining the relations of the two pulsations and the apex-beat to the heart-sounds. The apex-beat is shown by the sphygmoscope to be synchronous with the first or systolic sound. The pulsation of the cardiac tumor cannot be synchronous with this sound, but I had not an opportunity of studying, satisfactorily, its precise relation to the first and second sounds, nor of observing the arterial pulsation in this point of view.

The Committee of the New York Pathological Society base their opinion that the cardiac pulsation in the fissure proceeds from the right ventricle, *first*, on the situation of the tumor; *second*, on the character of the pulsations; and *third*, on the enlargement of the tumor produced by a prolonged expiration.* Assuming that the tumor is a portion of the right auricle, the heart is not in its normal situation. That it is situated higher than usual, is shown by the apex-beat being in the fourth, instead of the fifth intercostal space, the posture being sitting or standing. Its position must also be more vertical, and the base removed farther to the left than in well-formed chests. It is not unreasonable to suppose that, under the circumstances, this abnormal situation exists. Careful percussion might perhaps settle this point. The pulsations of the tumor are described as "wavy and peristaltic, running from above downward, and from right to left." As opposed to these, it is stated that "the contractions of the appendix auriculæ (the only part of the right auricle which could present anteriorly) are different in character, and are directed from the point of the appendix toward the body of the auricle, more posteriorly and toward the right." It is to be remarked, with reference to this point, that a depression exists within the limits of the fissure, and inspection extends somewhat below the anterior surface of the heart. The enlargement of the cardiac tumor produced by a forced expiration is remarkable. It is caused by the mechanical obstruction to the pulmonary circulation. It is evident, and vivisections, as well as examinations after death, show that the right auricle, as well as the right ventricle, becomes distended under these circumstances, so that the enlargement of the tumor cannot be considered as proving that it is not auricular.

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* For this report, *vide* the American Medical Monthly, January, 1859.

So far as the cardiac pulsation is concerned, in the case of Mr. Groux, the question of its source is chiefly interesting as a matter of curiosity. In view of the discrepancy of opinion with regard to this question, although an individual observer may arrive at a conclusion which is satisfactory to himself, he is not warranted in assuming this conclusion to be indubitably correct. The phenomena, therefore, connected with this pulsation, cannot become of much real value to science until its source is determined by an autopsical examination, which, in the case of Mr. Groux, it is to be hoped, may be deferred for many years to come. It is a clinical problem, in the case, to determine what portion of the heart constitutes this tumor; when, to be really useful in its application to physiology, there should be no room for discussion on this point.

Were the source of the pulsations established beyond all doubt, the opportunity for studying its relations to the movements and sounds of the heart would be more valuable than they can at present be made to the satisfaction of all minds.

On applying the stethoscope over the cardiac tumor, the two sounds of the heart are distinctly heard, the second sound being more intense than the first. The latter fact is interesting as showing the predominance of the second sound over the valvular element of the first sound. On auscultation over the right auricle, I was unable to satisfy myself as to an auricular sound, the existence of which is supposed, by some observers, to be proved by this case. My examination, however, was not sufficiently directed to this point to enable me to arrive at the conclusion that an auricular sound is not present.

Arterial Pulsation.—The pulsation of the tumor which is seen in the fissure, being demonstrated to the cardiac, the pulsating body felt on deep pressure with the finger just above this tumor, is undoubtedly the aorta. The pulsation is wavy, and gives the idea of a current of liquid propelled through an elastic tube of considerable size. It is an undulatory rather than a pulsative movement. As compared by the touch, it occurs synchronously with the apex-beat of the heart. I did not perceive a movement consecutive to the apex-beat or the ventricular systole, and representing the force which gives rise to the expansion of the semilunar valves and the second or distolic sound of the heart; but my attention was perhaps not sufficienty directed to this point.

With the sphygmoscope placed over the aorta, a movement is represented to the eye. This movement is not synchronous, but alternates with the apex-beat as represented by another sphygmoscope placed at the same time over the apex of the heart. This fact is very clearly and beautifully shown. The aortic motion as felt by the finger, and as seen by the eye through the medium of the sphygmoscope, is evidently not the same; in the one case it is synchronous with the first sound of the heart, and in the other case it coïncides with the second sound. The movement seen with the sphygmoscope must be due to the recoil of the arterial coats after the distension caused by the current of blood propelled into the arteries by the left ventricle. It represents, in other words, the force which expands the semilunar valves, and produces the aortic second sound of the heart. With the electro-magnetic apparatus, this is beautifully illustrated. The arterial motion, synchronous with the apex-beat, and that which coïncides with the second sound, are, from time to time, signalized each by a stroke on one of the two bells, the two strokes following each other in quick succession, the second stroke representing the arterial recoil, being the louder of the two. Assuming that there is here no error of observation, these experiments are highly interesting as illustrating the force which causes the expansion of the semilunar valves, and the production of the second sound. Comparing the relative force of the two motions, viz: the motion synchronous with the apex-beat, and that coïncident with the second sound, as represented by the sphygmoscope and the two bells, it is intelligible that an aortic regurgitant murmur should be as loud as it is sometimes observed to be in cases of insufficiency of the aortic valves. It is also intelligible that in aortic lesions with insufficiency, an aortic regurgitant murmur may be present without an aortic direct murmr—a fact which clinical observation shows to be of not unfrequent occurrence. Moreover, the force of this recoil explains

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MEMOIR ON THE RACES OF MANKIND.

By ANTHONY PENISTON, M. D., Professor of Physiology in the New Orleans School of Medicine.

Non ex vulgi opinione sed ex sano judicio.—BACON.

Among the numerous able and interesting articles which have appeared in Brown-Séquard's Journal de Physiologie, we have found an interesting memoir by Professor Paul Broca, of Paris, and termed by him, "A Memoir on Hybridity in General, on the distinction between Animal Races and on the Hybrids obtained by the Crossing between the Hare and Rabbit." In this able article which covers over one hundred and fifty pages of print, the author enters into many curious investigations, historical and histological, on the Races of Mankind. No one is more competent to invest this difficult subject with fresh interest and importance than Doctor Broca, who now, with Robin and Verneuil, ranks among the greatest microscopists of the day. From his labors have we drawn the theme of the following pages, and that we may render unto Cæsar what belongs to Cæsar, we dedicate to Doctor Broca this attempt of ours to publish on the other side of the Atlantic those ideas he has so well advocated.

When we examine the various races of men which inhabit our planet we naturally ask, whence these diversities of color, form, structure, language, etc., which are so essentially different and characteristic of each of these types of Mankind? To explain these varieties in the great human family two dogmas, two great sects immediately rise before us; and like Aladdin, in the eastern tale, we might truly be frightened at the potent spirits we have evoked. But since, like the genius of the lamp, and the genius of the ring, they are still the slaves of the mind, we shall dare to question them, aye, and force them to answer. Nor shall we fear, in thus attempting to lift a small corner of the veil, to offend any who have at heart the love of true science, as long as we do so with all deference and respect, guided as we are by no other motive save that of giving to our reader some curious information about that which most of all others concerns him, viz: man himself and his probable origin.

Two opinions on the origin of Man at once present themselves: the one simple, clear, natural and almost evident, explains the diversity of effects by the diversity of causes, and attributes the varieties of mankind to varieties in their original creation; the other admitted only for the wants of the system which it supports, asserts, contrary to appearance and probability, that all the races of mankind belong to one species and are issued from the same blood.

The term species, according to the orthodox opinion, is applied to the mass of individuals which descend in direct line and without mixture from the original and primordial couple. Thus looking around us at the numerous varieties of dogs, we would admit according to this rule, that the greyhound, and the bull dog, the New Foundland dog, and the terrier, are all descended from the original pair, only subsequently modified by habits and climate. And yet, there are among dogs differences of organization and structure which are quite incompatible with the idea of a common origin. Exaggerate as you will the influence of domesticity, nourishment, climate, habits, from generation to generation, and you cannot transform a bull dog into a King Charles spaniel. Any one entering an osteological museum cannot fail to recognize the differences of form in the crania of the principal canine races. Again, in some varieties of the bull dog the posterior extremities have five toes, whereas in all other dogs the fifth toe is quite as rudimental as the membrana nictitans is in man. Then again the number of caudal vertebræ varies from fourteen to twenty-five; the number of teats from eight to ten. The ears of some, as in the shepherd dog, are erect, in others they are long and hanging. The nose of the greyhound is long and sharp, in others broad and separated by a deep furrow. Add to this the infinite variety of color, and hairy covering, from the naked Mexican dog to the shaggy New Foundland, from the silky down of the spaniel to the wool of the Esquimaux dog, and we have physical differences greater than those which differentiate the ass and the horse.

A curious fact connected with these varieties in the fur of the dog, if we may so express ourselves, is the strange circumstance that the Esquimaux dog has a perfect woolly covering, showing that the North wind which straightens the hair of man crisps that of the dog, whereas the equatorial sun which straightens the hair of the dog and the lion, crisps the Ethiopian's woolly head. But if time, and climate, and education can have modified the very form and structure of the primitive dog let us look back among the ages of the past and see if we find somewhere our ideal type. But in the songs of Homer, on the monumental pages of Egyptian granite, in the farthest antiquity where man is portrayed, we find his faithful comparison, the dog, already existing in distinct varieties. On the hieroglyphics of Memphis, on the ruins of Ninevah and Babylon, among the mummies of the ancient Egyptians, we recognize the self-same greyhound, the terrier, the cur, etc., which are now around us. Forty centuries have passed away since Nimrod and that Egyptian king of the twelfth dynasty, whose hunting exploits are figured on many a bas-relief, yet had they doubtless among their packs hounds as fleet, as deep-mouthed and true of scent as ever coursed deer on our own hills or those of merrie England. Now these pages of granite on which the despots of the East engraved their exploits are said to go back four thousand years, and as the Noachian deluge took place, according to chronological tables, 2348 years before the Christian era, it would follow that in these two or three hundred years which intervened, at a time when man transmits no records of himself, he had already succeeded in producing from the primitive pair all the varieties which now exist. No evidence can be adduced to show that since forty centuries a single variety has been added, and doubtless king Pharoah had as good blood hounds to chase the Israelites of old as our modern slave owner employed for purposes the same. If, then, we seek an explanation for these varieties, in the species, from physical causes, we may ask why should they have acted in the shorter, and ceased multiplying varieties in the longer period when all the same agencies were still at hand? We would not, however, be understood to intimate that man has not exercised some modifying influence on the dog, though, doubtless, what has been said of the susceptibility, and perceptibility of the dog is much exaggerated. Man has availed himself of the peculiar aptitude and qualities of each race; has modified their instincts, and imposed upon them his tastes and even his passions. If the greyhound is tall and slender, it is not because he has been, from time immemorial, used for the purposes of the chase, but rather being naturally active and eager for the chase, man has only utilised those instincts in the natural direction to which they tended. And so it is of the other varieties. The strength, the intelligence, the activity which belong to different varieties, are derived from their primitive organization; these qualities have only been developed by education and cultivation. Those who maintain the unity of the canine race have been led into singular absurdities by this supposition, in attempting to account for the shape, form, and habitation of the parent stock. Buffon supposed that the mountaineer's dog is the parent of all others; others find in the dingo of New Holland, the pure unadulterated specimen. Then the illustrious John Hunter, supposed that the wolf, having been tamed by man, was gradually transformed into the dog, and the latter, recovering his liberty, was transformed into the jackal; the wolf, therefore, being the only natural product of the three. These attempts show to what conclusions we are led, when we call in the imagination to explain physical phenomena. We are thus led to the conclusion that the diversities in the races and varieties of dogs, are the results of the varieties in the parent stock, and that the Esquimaux dog, the New Holland dog, the greyhound, the bull, the terrier, etc., can no more have descended from the same two parents, than the polar bear can have descended from the identical bruin male and female, which Noah landed in the plains of Mesopotomia. One of the arguments commonly urged in favor of the unity of the human race, is that Hybrids or the result of the crossings of different species are never fruitful. But this mode of reasoning will amount to very little, if we have established that the varieties of dogs are really distinct species, as much so as the horse and the ass. Moreover, we have succeeded in proving by a number of carefully conducted experiments, that the issue of the cross between the rabbit and the hare is remarkably fruitful, and doubtless further researches would find other exceptions to this law which has heretofore been supposed immutable. Now, as all the varieties of man produce by marriage children, which, though of mongrel breed, are themselves fruitful, it has been contended that they must have descended from a common origin, and we have certainly shown that man is not the only exception to this rule.

We ask in vain from the records of the past, to tell us by what means the descendents of Noah begat children differing so widely from each other in color and features. Again, the monuments of Egypt prove to us, that forty centuries ago, the types of mankind already existed as distinct as they are now. The learned American ethnologist, Samuel George Morton, in his Crania Ægyptiaca, has reproduced nine Ethiopian heads, drawn from the sculptures of Egypt, representing the victory of Rhamses II, over the Nubian negroes, in the temple of Beyt-el Wâlee. The head of Rhamses presents a stricking contrast to those of the vanquished; it is exactly like that of a modern Greek, among as many Congo negroes.

Rosellini has reproduced another drawing, representing the battle of Rhamses III, the Sesostris of the Greeks, against the Scythians. Among the allies of the latter, we recognize the features of the Moguls of Central Asia. Their peculiarly shaped head, their long and narrow mustache, their hair shaved in front and collected in long plats behind, are all faithfully represented. As they are now, so were they four thousand years ago. On those same Egyptian monuments, we recognize the Jew, the Arab, and the Hindoo type, as marked and distinct as they are at this day. This is as far as historical records lead us with any certainty, although that singular people, the Chinese, pretend to carry their history to periods far more remote, and in proof of them, urge astronomical observations and eclipses, which, by retrospective calculations have been found correct. At these remote periods were the races of men, which now inhabit America, Polynesia, and the South of Africa, already in existence, though unknown to the civilized nations of antiquity? On these points we of course know very little. But as these races have undergone very little change since their discovery in more modern times, we are led to conclude that they are as ancient as the others. Independently, however, of the American and Oceanic races, and setting aside the question of their antiquity, we still find that four thousand years ago, there were already three great varieties of mankind—the white, the yellow, and the black. We need not for the present ask by what means the Mongolian and Caucasian, two such distinct types from that day to the present, could have originally descended from the same parent? We bring the issue to the single point: Had the white and the black men represented on the monuments of Egypt, the same ancestors? Here again we find two explanations of this metamorphosis. One attributes the moral and physical degradation of the negro race, to the curse pronounced by Noah against Ham, his second son. The other substitutes a physical reason for the supernatural explanation, and attributes the change in color to the long continued influence of climate and a tropical sun. Both sides agree that the first men were white.

We shall proceed to show that the bible gives no authority for the first assertion, and that the influence of climate is not competent to produce the latter. We find nothing in the sacred writings, which refers to the distinction of races after the deluge. Yet, it is commonly supposed that Noah's curse against the posterity of Ham, brought about that change of color, which perpetuates for ever that dire malediction. Yet the text says nothing of the kind, but simply dooms to slavery the descendents of Canaan, the fourth son of Ham.

Here is the text, chap. ix, verse 25:

"25. And he said, cursed be Canaan; a servant of servants shall he be unto his brethren.

"26. And he said, Blessed be the Lord God of Shem: and Canaan shall be his servant.

"27. God shall enlarge Japheth, and he shall dwell in the tents of Shem; and Canaan shall be his servant."

Now it may be supposed, though the text says nothing about color, that in consequence of their degradation, they have journeyed into distant lands, having turned black either gradually or suddenly. This supposition is entirely inadmissible, for the bible distinctly specifies the land which was inhabited by the sons of Canaan; and the natives which lived there were never black.

The bible says in the tenth chapter:

"19. And the border of the Canaanites was from Sidon, as those comest to Gerar, unto Gaza; as thou goest unto Sodom and Gomorrah, and Admak, and Zeboim, even unto Lasha."

In other words the land of Canaan was situated within Palestine, and when the Israelites returned into the land of Canaan six hundred years afterwards, they founded their claim upon the curse of Noah, which doomed to slavery the inhabitants of that very country. But in all this we see nothing about negroes. Nay, they existed already, and it is a great injustice to apply the curse of Noah to the inhabitants of Guinea or Congo, who certainly never had anything to do with the Patriarch, why he should curse them.

Having thus shown that the black race were never blackened by supernatural agency, at least posterior to their first creation, let us examine whether natural and physical causes could have produced this effect.

Bearing in mind that the Ethiopians have not changed since the time when Rhamses III, four thousand years ago, dragged them in captivity beind his triumphal car, it follows that their metamorphosis was already accomplished at that early period.

Now, according to the Jewish chronology, the Noachian deluge took place 2348 years before Christ, and therefore only about two or three hundred years before the time when their figures were portrayed on the monuments of Egypt. We are, therefore, led to conclude that the action of physical causes was sufficient in two or three hundred years to turn certain portions of the human race from white to black. It is true that a learned author* in accounting for this fact calculates to his own satisfaction that the sun was directly over Ethiopia when Joshua stopped it, and the consequence of this feat was that all those nations turned black on that day, and have remained so ever since. Others deny this; admitting, however, that the *sta sol* of Joshua did blacken the Inquisition, and came very near burning Galileo. But, seriously speaking, we know that white races have been living under the tropics for more than four hundred years, and that, so far, they have made very little progress in turning black and becoming woolly-headed. It is true that a white person living exposed to atmospheric influences under tropical climates becomes rapidly sunburnt and dark, but this is not at all hereditary, and is confined to those portions of the body which are exposed to the inclemency of the weather. We know very well that certain accidental modifications of the body, though repeated from generation to generation, from time immemorial, never change the external form. The Chinese lady must needs have her foot cramped at this day, as her ancestors did perhaps forty centuries ago; circumcision must take place now as in the time of Abraham. The Polynesians have never come into the world already tattooed, nor the Australians with a hole through the septum of the nose. If the influence of climate were sufficient to change the races it is evident that we might expect that the races all over the world, which live under the Equator should be black, and this is far from being true even in Africa, and entirely false in America. A good many black races, as the Caffres, and Bechuanas, live outside the tropics. The darkest negroes of Senegal, the Yolofs, have on the one side the Moors, who are of a tawny color, and on the other the Foulahs, who are copper colored, and the Mandingoes, who are of a chocolate color. On the continent of America, the Charruas, a race of Indians now extinct, lived in Patagonia, and they are represented by Pritchard to have been as dark as negroes. On the long peninsula of California, in the temperate zone, we find Indians as dark as the negroes of Abyssinia. The Araucanians of Chili, and the Peruvians are very fair and of a light olive. We must, therefore, come to the conclusion that the differences of color are not due to the influences of climate, or they would cease when these influences change. The fact of it is that the skin of the negro is different from that of the white races, and so different that it requires the hand of the Great Creator to have started them into existence The microscope explains perfectly this capital difference, easily enough recognized with the naked eye, though the latter could not reveal as well the distinguishing element. The difference of color in the skin of the negro is caused by the enormous accumulation of the pigment in the deeper layers of the epidermis; this layer being made up of cells which are transparent in the white, and full of black coloring matter in the negro. Now this is a structural difference which climate can neither give nor take away. The appearance of the negro's hair is another characteristic, which, as it would be sufficient to differentiate the sheep from the goat, must certainly, when added to numerous other peculiarities, afford a weighty argument in favor of denying a common origin to this and the straight haired races. The term wool is commonly applied to the hair of the negro, although it is not identical in structure with the wool of the sheep. In fact the anatomical structure of the hair in the white and in the negro races is very nearly the same; but in general it is the shape of organs and not their structure which serves as a basis to zoölogical classifications. It is a well known fact that vegetables as well as animals are made up of cells, yet who would contend that there is no difference between a plant and an animal?

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* Lecat, Traité de la couleur de la peau humaine, Amsterdam, 1765.

Who would take as identical the smooth and straight hair of the white races, with the twisted, matted and inextricable curls of the negro, which no comb can untangle and no grease can straighten? This character is as important and striking as the color of the skin, it is permanent and invariably transmitted by hereditary descent. We recognize it on the negro heads represented on the monuments of Egypt four thousand years ago. And yet all negroes have not woolly heads. Many races in Nubia and Abyssinia have hair either straight or slightly curled. There is in fact no natural sequence between a black color and a woolly head, and this fact alone shows that neither is dependent upon climacteric influences. Independently of these external characteristics of the black races there are many other anatomical differences which, when taken together have an important signification, and do not allow us for a moment to hesitate in asserting that the negro is a distinct species of the *genus homo.*

The physiognomy of the negro, even apart from his color, is also marked and peculiar. It is characterized by a narrow and receding forehead, by a thick flattened nose, large eyes with a dark iris and yellow sclerotica, extremely thick lips, curled outwards and pushed even beyond the nose, projecting maxillary bones, supporting prognathous teeth, recalling the higher varieties of the monkey tribe; such is the picture of the negro in all his purity.

The peculiarities which we shall now set forth, though not as apparent as those we have mentioned, are, nevertheless, extremely important, and can be verified by every anatomist.

The muscles of the negro are more deeply colored than those of the European races, his cartilages and tendons have a more yellow tinge; the long bones are harder and more dense. The bones of the cranium are much thicker than ours, of greater density and have scarcely any intervening diploë or spongy tissue. Their resisting power is much greater and they sometimes endure without fracture the most extraordinary blows. The pelvic bones are exceedingly thick and the iliac fossa does not present the transparency which is observable in the European. The supra-renal capsules of the negro are much larger and more highly colored than those of the white races. Since the interesting researches of Dr. Addison, this anatomical fact assumes some importance in reference to the coloration of those races. In the nervous system the grey matter of the brain is darker in color; the white substance has a bluish tinge, and the tissue of the pineal gland is of a dark blue. Another curious circumstance is, that the nervous filaments of the extremities are much larger than in the European, and, on the other hand, the brain and spinal cord are much smaller in proportion; in other words it would appear as if the nervous system of animal life had developed itself at the expense of the brain, the animal and physical properties at the expense of the intellectual.

Soemmering has pointed out another peculiarity, which, though not important is still curious enough. It is well known that certain animals possess a membrane which they have the power of bringing over the eye, as a protection; this membrana nictitans, as it is called, disappears gradually in the higher races of animals; but in the ourang-outang we still find it well marked at the inner angle of the eye. In the European we scarcely find a trace of this membrane, but in the negro the plica semilunaris is still well marked, and resembles that of the ourang-outang. Of course, between the lowest negro and the highest race of monkeys there are still immense differences of organization and structure, and no animal appears to fill up the hiatus. There is no doubt, however, that the negro is intermediate between the Caucasian race and the anthropoid apes. Besides the membrana nictitans we find several other characters which would confirm our assertion. Thus the foot of the negro is flat, the heel is projecting, the metatarsal bones are spread out and the big toe somewhat separated from the others. Nevertheless it has not the power of prehension though it recalls somewhat the inferior extremity of the quadrumana. From the careful measurement of a great many skeletons, we have found that the arm is much longer in proportion to his size in the negro than in the white man, so that if we represent the length of the arm in the white race by 100, that of the negro will be 107,84, or very nearly eight per cent. longer than that of the white. If we add to these the projection of the maxillary bones, the obliquity of the teeth, the narrowness of the pelvis, the smaller capacity of the cranium, and the small opening of the facial angle, we shall have altogether a mass of zoölogical characters which place the negro below the European in the scale of beings, through still immeasurably above the monkey. The anatomical characters which we have enumerated prove also that the difference between the negro and the white are not limited to external appearances, but extend likewise to the most essential parts of their structure and organization.

Whether under the benign influences of civilization those physical differences may not gradually disappear, is a question of another order, and perhaps as difficult to answer as that other query whether man himself, even in his most elevated specimens, is not destined to be a preparatory type to another race which will succeed and surpass him in every virtue as well as in every intellectual quality.

CLINICAL REPORT

ON CASES OBSERVED AT THE NEW ORLEANS CHARITY HOSPITAL.

By Austin Flint, M. D., Prof. of Clin Med., etc., New Orleans School of Medicine.

TYPHOID FEVER.

The number of cases of Typhoid Fever admitted into my wards during my term of service, extending from the middle of November, 1858, to the middle of February, 1859, was not large. My clinical records contain the notes of only nine cases, which were all that came under my observation. In my report on these cases, I shall follow the plan pursued in my two previous reports, giving an account of each case separately, condensed from the records made daily at the bed-side, and appending a few remarks suggested by a reviewal of the interesting points embraced in the history of the case.

Much discussion has taken place within the last few years respecting typhoid fever, as occurring in the southern and western portions of our country. Doubt and difference of opinion have arisen often, in various sections, as to whether prevailing forms of fever were truly typhoid, or merely varieties of remitting fever. Considerable confusion proceeds from practitioners and writers not always appreciating, or keeping clearly in view, the nosological distinction between these two types of fever. Typhoid fever, as studied by Louis, and its individuality determined by the only method in which the natural history of a disease can be fully ascertained, viz: the analysis of a sufficient number of recorded cases, presents a group of characters which has been found to be identical, when the disease has been studied after the same method in different seasons and countries. It is a striking and significant fact, that the typhoid fever of Paris is in all respects the typhoid fever of London, and of certain parts of this country; the various symptomatic phenomena and effects, in a series of cases recorded and analyzed by different observers, being found to occur in nearly the same arithmetical ratio. The same is true of the disease as occurring in the same place in different years. For the sake of clearness, to this disease the name of *typhoid fever* should be restricted. The term, however, is often used in a more comprehensive sense, to embrace cases of remitting fever in which more or less of the symptoms of typhoid fever, especially those pertaining to the nervous system, are manifested; in other words, typhoid fever and a typhoid state, terms nosologically quite different, are often considered as synonymous. Typhoid fever is a disease distinguished by a peculiar group of abdominal and other disorders, a characteristic eruption in a large proportion of cases, certain laws relating to sex, age, season, duration, etc., in addition to those phenomena relating to the mind and nervous system with which the name typhoid is commonly associated. Remitting and other forms of fever may present the same symptoms, that is, a typhoid state, while they are sufficiently distinguished by other characters from typhoid fever. This distinction should be clearly apprehended, and is important to be borne in mind in talking or writing on the prevalence, etc., of typhoid fever.

Confusion in the application of the term typhoid fever, and difference of opinion among practitioners as to whether certain cases of fever be typhoid fever or not, belong especially to those parts of the country in which periodical fevers prevail to a greater or less extent. There is a reason for this, in the fact that it is sometimes difficult, clinically, to distinguish between typhoid and remitting fever. There is an excellent reason for this difficulty, viz: typhoid fever and periodical fever may be blended. The most rational view of remitting fever, as it seems to me, is to regard it as an affection generated by the combined germs of these two forms of fever. This view reconciles and explains facts which, otherwise, cannot be satisfactorily accounted for. It is intelligible that practitioners should hold pertinaciously to the doctrine of remitting fever running into typhoid; for, in certain cases, so many of the phenomena of the latter are presented, as to render the differential diagnosis doubtful or impossible. The great diversity in the symptomatic history of different cases of remitting fever, can be understood when it is considered that the morbid effects of the typhoid element may be mingled with those of the periodical element in every variety of proportion. That typical cases of typhoid fever are rarely seen in malarious districts, is simply because the disease is more or less modified by the influence of malaria. That typhoid fever replaces remitting fever in proportion as malarious emanations from the soil are extinguished by cultivation, and, finally, becomes the indigenous form of fever in sections where it had been previously unknown, is consistent with this doctrine of the blending of periodical and continued fever. Is it probable that the special cause of typhoid fever remains in abeyance precisely so long as periodical fevers prevail, and manifests itself directly the latter cease to be prevalent? Is it not a more probable supposition that the special causes of the two fevers have coëxisted, and that the characters of typhoid fever have been, to a greater or less extent, marked by the combination?

But I have pursued this train of remarks farther than I had intended. With reference to the blending of fevers, as well as other questions, the fevers of those sections of the country in which malaria is more or less abundant, afford scope for greater clinical study than has as yet been bestowed on them, especially by means of the analysis of recorded cases. It is not claimed for this report that it contributes much toward the natural history of typhoid fever as presented at the South. The cases are too few for numerical analysis. Apart, however, from interesting points which belong to the histories of the cases individually, they will at least show that well-marked examples of this form of fever, not differing in essential characters from cases in northern cities, are sufficiently common in New Orleans.

Case 1. *Non-suppurating parotitis during convalesence from typhoid fever.*

John Hughes, aged 25, admitted Nov. 1, 1858.

This patient had been fifteen days in hospital when my service commenced. Convalescence was dated from Nov. 21. After the case came under my observation, there existed active delirium and dejections in bed. The treatment consisted of milk-punch and essence of beef, prior to convalescence; and, during convalesence, the citrate of iron and quinine. The latter remedy was prescribed in consequence of the anæmic appearance of the patient. He had been subject to attacks of intermittent fever; but the last attack was six months prior to his present disease.

Nov. 29th, eight days from the date of convalescence, swelling of the right parotid commenced. It became considerably swelled, painful and tender on pressure. There was no febrile movement, and the patient continued to sit up. The swelling was painted with the tincture of iodine, and the water-dressing applied, the citrate of iron and quinine being continued. The swelling, redness, and tenderness persisted for several days, then gradually diminished, and had disappeared on Dec. 1st, when he was discharged, complaining only of weakness.

Remarks. The history of this case was incomplete, in consequence of its having been under my observation only during the latter part of the febrile career. The only point of interest is the occurrence of parotitis during convalescence.

Parotitis occurs in a certain proportion of cases, in connection with continued fever. It is rarely referred to by writers, and when mentioned has been considered as an event incident to convalescence. It has been included among the events called critical. It has, however, no claims to this character; and, so far as my observations go, its occurrence during convalescence is an exception to the general rule. Of six instances embraced in my reports of the analysis of 164 cases of continued fever, published in 1852, in four the parotitis became developed during the progress of the fever. The instance now reported, offered an exception to the rule. So far from tending to bring the fever to a favorable termination, it constitutes a serious complication, not only adding to the sufferings of the patient, but increasing the severity and danger of the disease.

Of the six cases just referred to, in all save one the inflammation proceeded to suppuration; and in the excepted case, death occurred before sufficient time had elapsed for suppuration to take place. I do not recollect to have met with an instance, aside from that now reported, of parotitis with considerable swelling, pain and redness, developed in connection with continued fever, and disappearing by resolution. Is it fair to attribute this rare mode of termination in the present instance, to the remedial measures employed? These were simple, viz: the application of the tincture of iodine for one or two days, followed by the water-dressing, the patient continuing to take the citrate of iron and quinine, with full diet. Without denying to them a certain amount of influence, it must, I think, be admitted that it is more rational to consider the non-suppuration as due to the intrinsic tendency of the local affection in this instance, rather than to the efficiency of the therapeutical means employed.

What relation does parotitis, occurring as a complication or sequel of typhoid fever, sustain to the fever? It is an event of too rare occurrence to be considered as being closely connected with the disease, but it occurs sufficiently often to denote something more than coincidence. It is a contingent, and yet not purely an accidental event. My analytical researches show that there is a proneness to its occurrence at certain periods, and not at other periods. It occurred in five of thirty cases of continued fever, recorded between March 29, 1849, and May, 1850. Prior to this period, an instance had never fallen under my observation. From this period to April, 1852, I recorded one hundred and twelve cases, which I afterwards analyzed; and out of this number parotitis was developed in but a single instance. I do not remember that among the cases which I have recorded during the last six years, numbering probably one hundred, or more, an instance has occurred excepting the case now reported. Concerning the nature of its relation to typhoid fever, it would be useless, with our present knowledge, to inquire.

Case 2. *Typhoid fever complicated with subacute, latent pneumonia.*

Peter Boyle, aged 25, admitted Nov. 17, 1858.

He had kept the bed two days before his admission, and had not been well for the previous week. The symptoms of the access were, headache, nausea and vomiting, occasional looseness of the bowels, sense of fatigue, etc.

After his admission, he presented symptoms characteristic of typhoid fever, as follows: slowness of the intellect, and apparent indifference, but no manifestations of delirium. He replied to questions coherently, but was sometimes unable to tell the day of the week, or the time of the day.

The abdomen was moderately tympanitic and tender in the iliac regions. Moderate diarrhœa continued. Sordes appeared on the teeth. A small number of rose spots were observed over the chest and abdomen, oval, papular, and the redness momentarily disappearing on pressure. On the sixth day after admission, there were dullness on percussion over the lower portion of the chest on the right side, the upper boundary corresponding with the interlobar fissure, and relatively feeble respiration. The dullness on the following day became marked, and the respiration continued feeble, without development of the bronchial characters. The cough and expectoration were slight; it is not mentioned that the sputa were rusty; the pulse and respiration at this time were not accelerated, and convalescense was declared thirteen days after admission. The pulse did not rise at any time over 90, and about the time of convalescence fell to 68. He was discharged, complaining only of slight cough, nine days after the date of convalescence, having been twenty-two days in hospital.

The treatment consisted of small doses of the sulphate of morphia, from time to time, to relieve the diarrhœa; brandy, in doses of half an ounce, three times daily at first, afterwards increased to an onnce every two hours; and for diet, the essence of beef and milk.

Remarks. As regards the events belonging to the clinical history of typhoid fever, this case presented no unusual features. It was a case of less than medium severity as regards ataxic or nervous symptoms, and much milder than the average as regards disturbance of the circulation. The development of pneumonitis is a point of interest. This is not a very rare complication of typhoid fever. It occurs at different periods of the febrile career, and cases differ remarkably in the symptoms and general disorder attributable to it. When it occurs early in the disease, and its symptomatic phenomena are marked, the practitioner, without due care, is liable to fall into the error of regarding the pneumonia as the primary or sole cause of the affection. A certain proportion of the cases of so-called typhoid pneumonia, are cases of typhoid fever with pneumonic inflammation developed secondarily; the distinction between pneumonia associated with certain typhoid symptoms, and typhoid fever complicated with pneumonia, not being always clearly apprehended. On the other hand, the occurrence of pneumonia in the course of typhoid fever, is sometimes overlooked. It can hardly be otherwise, if the practitioner relies upon symptoms, to the exclusion of physical signs. Pneumonia, as a primitive affection, is sometimes remarkably latent; pain, accelerated breathing, rusty sputa, and even cough, being wanting. This is not unfrequently the case when it is developed in connection with typhoid fever, or some other affection. I do not now refer to the instances of pseudo-pneumonia in which, during protracted fever with adynamia, hypostatic congestion, œdema, and perhaps a low grade of inflammatory action, occur in the latter stage of the disease; but I have reference to distinct pneumonic inflammation extending over a lobe, and giving rise to the solidifying exudation. In these latent cases, the inflammation may be distinguished as subacute; but not chronic, for resolution may take place rapidly. The auscultatory signs are apt to be less marked than in cases of ordinary, frank pneumonia.

How does the coëxistence of pneumonia affect the treatment of typhoid fever? As a rule, it furnishes a contra-indication for measures which tend to impair the forces upon which dependence is to be placed for a safe passage through the febrile career. Whatever may be thought of the propriety of general and local blood-letting, mercurialization, antimony, etc., when the pneumonia is primitive, the importance of supporting the powers of the system renders these measures inappropriate when the pneumonia is a complication of typhoid fever. As a rule, the coëxistence of pneumonia furnishes more than a contraïndication as regards debilitating measures; it constitues a positive indication for additional sustaining treatment. In proportion as the tendency to death by asthenia is increased by this complication, the safety of the patient depends on the efficient use of alcoholic stimulants and nutriment.

Case 3. *Typhoid fever complicated with pneumonitis. Sloughing over hips and sacrum. Probable enlargement of bronchial glands. Tedious convalescence.*

Henry Corcoran, aged 28, Irish, laborer, admitted Nov. 24th, 1858.

He stated that he had a severe cold for four weeks, but had kept about until four days before his admission, when he took to the bed.

The symptoms and signs of pneumonia affecting the lower lobe of the left lung, were present on his admission. The respirations were 32. There was circumscribed redness of the cheeks. The expectoration was adhesive and rusty. Marked dullness on percussion existed over the lower lobe of the right lung, with crepitant râle and the bronchial whisper.

Delirium soon became a prominent symptom, consisting of incoherent talking, and frequent efforts to get out of bed, in which, when unobserved, he sometimes succeeded, and on one occasion put on his clothes. The respirations were increased to 48. The pulse rose to 100. There was moderate diarrhœa, together with tympanites and tenderness in the iliac regions; the teeth were loaded with sordes. The tongue became dry and hard. In the progress of the febrile career, coma-vigil, carphologia and subsultus were developed. An eruption in this case was not observed.

Improvement was apparent December 2d, eight days after admission, and twelve days after taking to the bed. The prostration, however, was extreme. Sloughing occurred over the hips and sacrum. The patient presented a cadaveric appearance. He was distinctly convalescent in three or four days afterward, but the convalescence was extremely tedious. The ulcerations over the hips and sacrum healed very slowly, and he was greatly annoyed by a dry, teazing, spasmodic cough. He remained in the hospital to the end of my service, and afterward. The cough had ceased, the sores had healed, and he was gaining steadily in strength and weight.

Examinations of the chest during convalescence showed complete resolution of the pneumonia; the dullness on percussion over the affected lobe having disappeared, and the normal respiration returned. But there was marked dullness over the inner half of the infra-clavicular region of the right side, the respiratory murmur being, in this situation, relatively feeble, without the bronchial characters. These signs at first led me to suspect tuberculosis; but, in view of the absence of bronchial or broncho-vesicular respiration, and the progressive improvement of the patient, enlargement of the bronchial glands seemed to be a more rational supposition.

The treatment during the career of the fever consisted of small doses of the sulphate of morphia, when the dejections were frequent; brandy in milk-punch, which was given in doses of an ounce (*i. e.* of brandy) hourly; and the essence of beef at short intervals. During convalescence opium and the sulphate of morphia were prescribed freely, to relieve the cough, and the chlorate of potassa was given in doses of a scruple, three times daily.

Remarks. In this case, pneumonia existed when the patient came under my observation, four days after taking to the bed. The symptoms, as well as signs, were sufficiently marked. The patient was not in a condition to give an intelligible account of the previous history. In such a case, if the practitioner be satisfied when he has discovered a disease which will account for many of the morbid phenomena, he is liable to go no further in his diagnosis than the pneumonia. And in this case, the eruption of typhoid fever was wanting. Yet, exclusive of the eruption, the symptoms characteristic of typhoid fever were present. On the other hand, the general symptoms were out of proportion to the local affection, and persisted while the resolution of the pneumonia was going on. The diagnosis of typhoid fever, complicated with pneumonia, was positive.

The case was one of severity and danger. For several days a fatal termination was confidently predicted by some of those who were accustomed to visit the wards. I cannot doubt that the life of the patient was preserved by the efficient employment of brandy, and concentrated nourishment. The importance of these measures in the treatment of typhoid fever, is no novelty in English and American medical practice, but it is not yet fully appreciated by the majority of practitioners. That the pulse falls and is prevented from rising in frequency, in some cases, by the administration of from one to two ounces of brandy hourly, and that the free use of spirits is not only consistent with, but may be rendered still more important by, pneumonia or some other inflammatory complication, is an innovation in therapeutics so much at variance with traditionary opinions, as not to be readily adopted without the evidence of personal observation. Experience, however, furnishes abundant proof that, in comparison with sustaining measures in the treatment of typhoid fever, other known remedial agencies are of small importance.

The probable enlargement of the bronchial glands, as denoted by the physical signs taken in connection with the symptoms, is an interesting point in the history of this case.

Case 4. *Typhoid fever with predominance and persistence of the abdominal symptoms.*

Frank Schuneman, aged 23, German, laborer, resided in New Orleans only six weeks; admitted Nov. 27th, 1858.

He stated that he had not been well for a week before his admission, complaining of pain in the head, lassitude, anorexia, diarrhœa, epistaxis, etc.; but he did not take to the bed prior to his admission.

He presented, on his admission, frequent dejections, marked tenderness and gurgling in the iliac regions, and moderate febrile movement.

The abdominal symptoms were prominent during the febrile career; the dejections were frequent, tympanites and tenderness marked. These symptoms continued into convalescence. Delirium was not manifested. The febrile movement was not great. Epistaxis occurred frequently, taking place for several successive days. An eruption of rose spots was well marked.

The patient could not be pronounced convalescent till Dec. 20th, twenty-four days from the date of admission and the time of taking to the bed; but prior to this date, he was for several days apparently on the verge of convalescence, on some days even sitting up a little. Convalescence appeared to be postponed by the persistence of the abdominal symptoms.

He was discharged Dec. 28th, after being in hospital thirty-two days, feeling well enough to take a journey north to his friends.

The treatment consisted of opium by the mouth and by enema, and the moderate use of brandy in milk punch, with essence of beef.

Remarks. The details of this, as well as the other cases, were fully recorded at the bed-side; but it would be tedious and useless to reproduce them in this report. My object is only to give a sketch of the history sufficiently to show the correctness of the diagnosis, and to present any particular points of interest.

This case illustrates a class of cases of typhoid fever, distinguished by the prominence and persistence of the characteristic abdominal symptoms. In all other respects the phenomena of the disease may denote mildness. The febrile movement may be moderate, ataxic symptoms wanting, the prostration not great; but the dejections are frequent, the abdomen distended and tenderness in the iliac regions marked. These predominating symptoms point to an unusual abundance or deposit in the intestinal (Peyerian) glands, and a corresponding amount of sloughing and ulceration; in other words, the symptoms, as a rule, represent the degree or extent of the lesions within the small intestine, which constitute the anatomical characteristic of typhoid fever. These lesions, when excessive, add considerably to the severity and danger of the disease. They postpone and prolong the period of convalescence. They may prove fatal, even after the patient has passed through the career of the fever, by inducing exhaustion. It is a curious fact that, under these circumstances, the liability to perforation of the intestine is diminished. Statistics show that this rare accident is less likely to occur in severe than in mild cases of the disease.

In a certain proportion of the cases of typhoid fever which end fatally in spite of judicious and efficient management, the result is due to incurable intestinal lesions. There is no special treatment to be employed with a view to prevent their occurrence, or to lessen their amount. Their variation in different cases depends on a determining influence intrinsic to the disease, and beyond our control as much as the eruption in small-pox is more or less abundant without regard to medicinal interference. The indications for treatment embrace only palliative and sustaining measures.

Case 5. *Typhoid fever without any unusual features.*

Alexander Campbell, aged 20, stage driver, admitted Nov. 30, 1858.

He stated that he had been ill about two weeks before his admission, and had kept the bed for a week. His symptoms before admission were headache, lassitude, chilly sensations at times, and diarrhœa.

On his admission he was somnolent, but easily roused, and replied to questions coherently. There was moderate febrile movement. The abdomen was meteorized, tender in the iliac regions, and he had four or five liquid dejections daily. Numerous rose spots were scattered over the chest and abdomen.

During the febrile career, the several classes of symptoms were marked, but in due proportion; and there were no unusual features. The febrile movement continued to be moderate. The abdominal symptoms were not urgent. Delirium was occasionally manifested by incoherent talking and attempts to get out of bed.

Convalescence was not distinctly declared until December 17th, eighteen days after admission, and twenty-five days from the date of taking to the bed. He was sufficiently well to be discharged December 29th, having been in hospital thirty days.

The treatment consisted of small doses of opium by the mouth, an occasional enema of laudanum; milk punch, and the essence of beef.

Remarks. This was a case which exemplified all the more important of the characteristic symptomatic phenomena of this form of fever, the symptoms being evenly balanced, and the career of the fever protracted beyond the average duration. In such cases, sustaining measures of treatment being employed, and graduated by the amount of prostration and their effects, the prognosis is always favorable. The patient is, however, exposed to certain accidents which may determine a fatal result. The more important of these are, apoplectic coma, perforation, and intestinal hæmorrhage. But statistics show that these events occur in only a small proportion of cases, so that the chances of the safety of the patient greatly preponderate. It may be laid down as a practical rule, that if the various classes of symptoms which compose the clinical history of typhoid fever, *i. e.*, the symptoms referable to the abdomen, the nervous system, the circulation, etc., are in a proper relative proportion—in other words, none being excessive—recovery may be expected with proper management, without reference to the duration of the disease. In the cases in which the disease tends to a fatal result, exclusive of those in which death is owing to the accidents just named, certain classes of symptoms are usually disproportionate to the other classes; for example, the abdominal symptoms may preponderate, as in case No. 4. In like manner, nervous orataxic symptoms are out of proportion when cases present active delirium, subsultus, carphologia, etc. These cases are apt to prove fatal. Other cases are distinguished by excessive diminution of the vital powers, or adynamia, as shown by frequency and feebleness of the pulse, muscular prostration, etc. The danger in these cases is great. On the other hand, all the symptoms may be so marked as apparently to invest a case with considerable gravity, without much risk to life, provided the symptoms are in due relation to each other. The duration of the disease appears to be determined generally by its intrinsic limitations, and is independent of the circumstance which tend to a fatal termination.

It should have been mentioned in the sketch of this case, that slight sloughing occurred over the hips. This is an accident liable to occur in cases in which the disease is protracted; and it may often be prevented by proper attention and care.

Case 6. *Typhoid fever with intermittent delirium, and tardy convalescence from mental apathy.*

Fred Flukeyer, Swiss, aged 31, stonemason, admitted Dec. 4th,1858.

He had not been well for two weeks before his admission, but did not take to the bed till he entered the hospital. The symptoms during the access were, pains in the limbs and abdomen, lassitude, diarrhœa, etc.

On his admission he had moderate febrile movement, tympanitic abdomen, tenderness and gurgling, and diarrhœa. Numerous characteristic rose spots were scattered over the abdomen and chest.

During the progress of the disease, delirium occurred at irregular intervals of two or three days, the patient, during the night, talking incoherently and attempting to get out of bed, and at other times remaining quiet and apparently rational. The febrile movement was not excessive; the abdominal symptoms were moderate, and the career of the fever was not marked by any unusual features. The patient, however, remained, day after day, apparently about to convalesce, but convalescence not distinctly declared. He showed small desire to take food, and no disposition to make any exertion, lying in an apathetic condition for several days after febrile movement and other symptoms of the disease had disappeared. Under these circumstances, he was taken out of bed and made to sit up. From this time the convalescence was distinct and rapid. He was discharged quite well, Jan. 10th, 1859, having been in hospital thirty-six days.

The treatment in this case during the progress of the fever, consisted of small doses of morphia, milk punch, and essence of beef. During convalescence, the chlorate of potassa was prescribed, in doses of a scruple, three times daily.

Remarks. An interesting point in the history of this case is referred to in the following note appended to the record: "This case illustrates the importance, in certain instances, of rousing patients to voluntary exertion. The patient lay day after day in bed, never speaking, and scarcely moving. He seemed almost inanimate, manifested no desire for food, and occasionally vomited. I directed the nurse to take him out of bed, and cause him to sit up for a little while daily. The first time he fainted. He was near fainting the second time, while I was in the ward. However, the plan was persevered in, and frictions made over the body. In a few days he manifested improvement, and has since convalesced rapidly."

The intermittent delirium is also an interesting point in the history of this case.

CASE 7. *Typhoid fever succeeding intermittent fever. Adynamia. Weakness of the first sound of the heart. Persisting frequency of the pulse in convalescence.*

John Meehan, aged 24, admitted into the ward, January 9th, 1859.

This patient was subject to relapses of intermittent fever, and had recently been in the ward for an attack of that disease. After being discharged, he was retained in the hospital as an out-door laborer. He came to the ward a few days before his admission, to obtain medicine for a relapse of intermittent fever of the tertian type. The paroxysms were suspended by the sulphate of quinia; but he continued ill, and when no longer able to keep about, he entered the ward and took to the bed.

On his admission the pulse was 100, and respirations 24. He presented deep capillary congestion of the face, especially of the cheeks, differing from the circumscribed flush of pneumonia in the gradual shading off of the redness. The mind was remarkably slow, but he replied to questions coherently. A well-marked rose-eruption was already developed over the chest and abdomen. The abdomen was meteorized, tender in the iliac regions, and he had moderate diarrhœa.

During the career of the fever, delirium became developed, but in a moderate degree, manifested by incoherency and occasional efforts to get up. The muscular prostration was marked. It was difficult for the patient to protrude the tongue or speak intelligibly. Twitching of the muscles of the face was observed, but no subsultus at the wrists. The abdominal symptoms continued to be moderate. The pulse varied from 100 to 120, and was notably soft and feeble. The first sound over the apex of the heart was extremely feeble and valvular, the second sound being accentuated in this situation. As the case approached toward convalescence, the first sound became stronger, and finally accentuated at the apex. The patient could not be considered as distinctly convalescent until January 30th, twenty-one days after the date of admission; but for several days the mind had been clear, and all the symptoms denoted the termination of the febrile career, except that the pulse remained frequent. On the 27th of January the pulse was 120; it was 88 on the 30th, when convalescence was distinct. Four days afterward the patient was able to sit up. Convalescence went on without any untoward symptoms, and the patient was discharged quite well February 23, having been in the hospital forty-four days.

The treatment in this case consisted of the sulphate of quinia, gr. v, with opium, gr. ., three times daily, for several days; opium by the mouth; and enemas of laudanum from time to time; brandy quite freely, two ounces hourly being given for several successive days; and beef-essence and chicken broth for diet.

Remarks. In this case typhoid fever occurred in a person subject to intermittent fever, and followed on the heels of an attack of the latter affection. I have occasionally met with similar instances of the close succession of the two forms of fever. The intermittent fever was promptly arrested by the special remedy for that disease. Had this remedy not been employed, it is highly probable that the paroxysms would have continued, masking the development of the typhoid fever, and presenting an example of remitting fever apparently running into typhoid fever. It is probable that the blending of intermittent and typhoid fever serves to mask, to a greater or less extent, the phenomena distinctive of each affection. But this, and other interesting points of inquiry, as well as the question whether remitting fever consists of intermittent or typhoid blended, are to be settled by future clinical researches.

This case was distinguished by the preponderance of symptoms denoting adynamia. The patient was greatly prostrated, and the free use of an alcoholic stimulant seemed to be necessary in order to obviate the tendency to death by asthenia. For several days, two ounces of brandy were given hourly, or forty-eight ounces during the twenty-four hours. I have included in the sketch of the history of this case the fact, that the first sound of the heart was weakened. Dr. Stokes, some years since, called attention to the value of this sign as expressing the state of the vital forces, and furnishing an indication and guide for the use of the wine or spirits. Dr. Huss, of Stockholm, has also written on the subject, in support of the views of Dr. Stokes.

I can bear testimony to the usefulness of the auscultation of the heart-sounds as regards this application. The power of the heart's contraction may be considered as representing, in typhoid fever, the state of the vital forces; and the relative intensity of the first sound at the apex, is a good criterion of the power with which the heart contracts. In health, the first sound at the apex is relatively more intense than the second; in other words, it is strongly accentuated. It is compound, being made up of the sound produced by expansion of the auricular valves, and of a sound caused by the impulsion of the apex against the walls of the chest. The latter which I have termed the *element of impulsion*, depends, other things being equal, on the power with which the left ventricle contracts; hence, this element is weakened, and may be extinguished when the muscular action of the organ is enfeebled. The valvular element of the first sound is normally less intense than the second sound; so that in proportion as the element of impulsion is impaired, the first sound becomes weaker than the second, and at the same time shorter, and valvular in quality like the second sound. This modification is observed in cases of typhoid fever characterized by adynamia. Auscultation should be practiced over the apex, and in proportion as the first sound is weak, as compared with the second sound, and short and valvular, it is to be inferred that the vital forces are lowered, and sustaining measures are indicated. This sign is more reliable than the pulse; but the latter furnishes corroborative evidence, in its frequency, softness, and feebleness. It is more available, by far, than the evidence of weakness derived from the voluntary muscles. The condition of the mind in cases of typhoid fever is often such that it is impossible to test the strength of the voluntary muscles; and even if this difficulty does not exist, the power of the acts performed by the these muscles depends in a measure on the force of the will, and is not therefore, a safe criterion of the state of the muscular system. The action of the heart being involuntary, it denotes the vital condition of an organ which, aside from the immediate effects of its condition on the circulation, is a representative of the muscular system and a thermometer of the vital forces; and the test of the vital condition of this organ furnished by the intensity of the first sound, has the advantage of being readily available as well as reliable.

Another point of interest in the history of this case is, the frequency of the pulse at the time of convalescence. This is sometimes observed when all the other symptoms appear to denote that the career of the fever is ended. On the other hand, it is oftener the case that at this period the pulse falls below the healthy standard, and rises to its normal frequency as convalescence is established. The condition of the pulse is highly important in watching the progress of typhoid fever; but, isolated from other symptoms, it would sometimes mislead.

CASE 8. *Apoplectic coma developed during the career of typhoid fever. Fatal.*

Warren C. Stovall, aged 19, mail-driver, admitted January 21st, 1859.

As the notes of this case do not occupy much space, I shall transcribe them in full.

Jan. 22. The patient states that he has been confined to the bed five days, and was not well for at least five days before taking to the bed. His symptoms have been diarrhœa, some vomiting, pain in the head, chills, lassitude, anorexia. No epistaxis. Owing to his prostration and mental condition, minute details pertaining to the previous history are not obtained.

The general aspect of the patient is characteristic: he is somnolent, but easily roused; he has an air of confusion when questioned, and replies slowly after considerable hesitation. During the night he was delirious, attempting often to get out of bed. On one occasion he gave as a reason for getting up, that he was following some black squirrels. He has had no dejection since his admission last evening. The tongue is protruded imperfectly, after a strong effort. It is dry and covered with scabby incrustations. Sordes on the teeth. Abdomen not distended. Moderate tenderness in both iliac regions, and none over the epigastrium. No eruption. The pulse 128, quick, vibratory. The first sound of the heart over the apex is intense, and the element of impulsion is marked. Respirations are 36. *The inspirations are slightly spasmodic. The attention of the class at the bed-side was called to this symptom and its significance.* Clear percussion-sound over the chest. Slight capillary congestion of face.

Treatment: opium, gr. i, every four hours. Essence of beef and milk for diet.

Jan. 23. The patient is unconscious, and cannot be roused. The countenance is Hippocratic. The inspirations are spasmodic; the respirations are 29. The extremities are cold. The pulse is nearly extinct. He was delirious during the night, often attempting to get out of bed.

Death occurred an hour after the foregoing was written, while I was in the ward. The body being removed by friends, an autopsy was not made.

Remarks. Sudden coma, generally proving fatal, occurs in a certain proportion of cases of typhoid fever. It occurred in 9 of 164 cases which I have formerly analyzed.* It is developed without being foreshadowed by any symptoms referable to the nervous system. Somnolency, coma-vigil, etc., do not necessarily precede it. So far as our knowledge of it is concerned, it is an accidental event; and is as likely to occur in mild as in severe cases. It may happen at any period during the febrile career. The pathological condition of the brain on which it depends, is not ascertained. It does not involve inflammation, nor extravasation, nor a notable degree of congestion. To say that it arises from a dynamic change, is saying simply that the condition is not within the scope of morbid anatomy, or, at least has not as yet been revealed by the scalpel. The liability to this accident is always to be taken into account in the prognosis of typhoid fever.

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* Clinical Reports on Continued Fever, etc. 1852.

The occurrence of sudden coma is frequently preceded for several hours by an alteration in the rhythm of the respiration. The inspiration is shortened and quickened, or, in other words, spasmodic. This symptom may be present when there are no other symptoms pointing to this accident, or to immediate danger. This altered rhythm of respiration, if not connected with any pulmonary complication, is always to be regarded as an ominous symptom in the course of typhoid fever. If it be present in a marked degree, and pneumonia, or other pulmonary complications, be excluded by the absence of physical signs, the occurrence of coma may be predicted with great confidence. The case just reported furnishes an illustration of this fact. The probability of coma was the subject of clinical remarks at the bed-side. Similar illustrations have repeatedly fallen under my observation, and several cases are detailed in my reports on Continued Fever. The symptom evidently arises from a pathological condition affecting the portion of the encephalon which presides over the respiratory acts, before extending so as to suspend the consciousness. Death takes place usually in these cases from an arrest of respiration, or in other words, by apnœa; but if there be much prostration, or adynamia, as in this case, the mode of dying is by apnœa and asthena combined.

Rapid vesication over the nucha, sinapisms to the extremities, and the free use of stimulants, have seemed in some instances to prevent a fatal result.

Case 9. *Typhoid fever, the disease being unusually mild.*

Léon Frechou, Frenchman, aged 29, gardener, admitted January 27, 1859.

He had resided in New Orleans but two months. About two months prior to his admission he had an attack of intermittent fever (tertian type), which was arrested by the sulphate of quinia. He had kept the bed for three days before coming to the hospital.

He presented, on his admission, febrile movement, mild diarrhœa, meteorism of abdomen, tenderness in the iliac regions, and gurgling.

The symptoms during the career of the fever, denoted unusual mildness of the disease. The pulse was pretty frequent, varying from 95 to 110. The abdominal symptoms were moderate. There were no manifestations of delirium; he seemed at times dull, and had an air of indifference, but always replied to questions quickly, and apparently with correctness. The tongue remained perfectly clean during the progress of the disease. The rose eruption over the abdomen and chest was copious, and fresh papules continued to appear up to the time of convalescence.

Convalescence was declared February 13th, seventeen days after his admission, and twenty days after taking to the bed. The pulse was 90 at the time of convalescence, all the other symptoms indicating that the career of the disease was ended. The convalescence was rapid.

The treatment in this case consisted of brandy in moderate doses, an occasional laudanum enema, and, for diet, boiled milk and the essence of beef.

Remarks. There were no points in the history of this case of particular interest. The case furnishes a good illustration of mild typhoid fever, the diagnostic phenomena being well marked.

GENERAL REMARKS.

The nine cases of typhoid fever which have been reported, occurred in my wards during a service of three months. My wards contained about thirty beds. The means of determining the number of cases occurring during the same period in the other wards of the hospital, are not at hand; but assuming an equal number to have occurred in the service of all the visiting physicians, the whole number of cases would exceed one hundred. The yearly report of the officers of the hospital to January, 1859, showed one hundred and twenty-nine cases of typhoid fever. This form of fever, thus, is sufficiently common in New Orleans. The proportion of cases to the number of patients received, is probably not far from the average in northern hospitals. The disease presents the same symptomatic phenomena as at the North. Judging from the histories of the cases now reported, there are no features peculiar to typhoid fever as observed in New Orleans. It occurs here, as at the North, during the autumnal months. My service commenced in the middle of November, and of the nine reported cases five occurred during the latter half of this month; one case was admitted December 4th, and the remaining three cases in January. It is probable that of the 129 cases which were received during the year, the greater portion occurred during my term of service. It may be worthy of note that my service commenced just at the close of a yellow-fever epidemic which had been unusually severe and protracted, two thousand seven hundred and twenty-seven cases having been treated in the Charity Hospital. The fatality from typhoid fever, judging from these few cases, is not greater than in northern cities. Of the nine cases, but one proved fatal, and in the only fatal case, death was owing to an event which occurs in a certain proportion of cases, viz: apoplectic coma.

The indications for treatment are the same at New Orleans as elsewhere. The treatment pursued in the cases reported was simple and uniform, but certainly not devoid of efficiency. In all the cases save one* it consisted in addition to opium or the sulphate of morphia administered by the mouth or rectum, in doses sufficient to keep the diarrhœa in check, of sustaining measures, in other words, of brandy and concentrated nourishment. These measures were pressed in proportion to the evidence afforded by the symptoms of the extent to which the vital powers were compromised by the disease. Brandy given, as in one of the cases, in doses of two ounces hourly, becomes a remedy of considerable potency. Given in much smaller quantity it can hardly be considered inefficient by those (still not a few) who, regarding it as an incendiary remedy, withhold it entirely in the management of fevers and inflammations. With our present knowledge of the natural history and pathology of typhoid fever, together with the fruits of therapeutical experience, the indications for efficient treatment are fulfilled by sustaining measures graduated in each case by the state of the vital forces and the tendency to a fatal result by asthenia; and the sustaining measures which meet the indications most efficiently, consist of alcoholic stimulants in the form of wine or spirits, with certain forms of nourishment embracing in concentrated bulk the important alimentary principles. The animal essences and milk furnish these principles best combined for nutrition. The sustaining plan of treatment carried out promptly, judiciously, and, if need be, boldly, together with palliative remedies suited to the circumstances in individual cases, will, I am satisfied, save not a few patients who would otherwise perish from typhoid fever; and when not essential to the safety of life, it conduces to a rapid and complete recovery.

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* In the excepted case the sulphate of quinia was given at the commencement, the patient having quite recently had an attack of intermittent fever.

LONDON CORRESPONDENCE.

London, July 8th, 1859.

My Dear Brickell: I wrote you last from this place, when I was on the eve of departure on a tour to some of the most notable places in the interior of England and Scotland. I have had a delightful excursion, stopping and taking sufficient time to examine satisfactorily the following places, viz: Oxford, Warwick Castle, Kennilworth, Stratford-on-Avon, Chatsworth Hall, Haddon Hall, York, Edinburgh, the Trossachs and Lakes Katrine and Lomond, Melrose and Dryburgh Abbeys, Abbottsford, Newstead Abbey, Stirling, and the City of Glasgow. From the latter place I had intended crossing over to Ireland, for the purpose of visiting Dublin and the Lakes of Killarney, but finally concluded to postpone that portion of my contemplated tour, until my return from the Continent. As my letters to you will be expected to be confined strictly to *medical affairs*, I shall say nothing of the many other deeply interesting subjects I have seen. To gaze on the ruins of once magnificent buildings; to linger around the graves and quondam abodes of Shakespeare, Scott and Byron; to muse o'er the crumbling wrecks of human power and greatness; to walk over battle-fields once stained with the blood of contending heroes; to pass through mountains and lakes, whose natural grandeur and beauty have been enhanced, if possible, by the magic power of descriptive genius, would afford, as you may readily imagine, ample material for longer letters than I can find leisure to write you, even if they were admissible in a medical journal; but I must abandon all such fascinating topics, and come to the stern realities of the *great Profession*, which has for its object the relief and preservation of perishing mortals.

The only places having medical institutions, which I visited during this excursion, were Edinburgh and Glasgow, both famous seats of medical science.

Edinburgh, July 1st. I arrived at this ancient and celebrated seat of modern science late in the evening, and at once sent my card to Prof. J. Hughes Bennett, to whom I had a letter of introduction from my esteemed friend, Prof. Blackie, of Nashville,. Tennessee. The following morning I met Dr. B. at the Royal Infirmary. I was courteously conducted not only through the hospital, but also to the University near by, and many other public institutions and places of note in the city.

Dr. Bennett is a fine looking man, with a youthful countenance for his age, but 47, yet hardly able to show a grey hair or a wrinkle. In going through his wards with him I was struck with the close examination of his patients and the care with which he pointed out every symptom of interest to his class. His physical exploration of lung and heart diseases were very minute, and the students were called on, in turn, to recognize what he pointed out. Minute histories were kept of every important case, and the student-reporter was prepared to answer any inquiry that might be made.

The Royal Infirmary is an ancient and extensive institution, and the theatre of many great men, both of ancient and modern times. Here the great Cullen, and the Bells, and the Monroes taught, and our great Rush and other American students learned the rudiments of the "*divine art;*" and here, at this day, may be found one of the most distinguished of modern surgeons (Mr. Syme); one of the ablest writers on clinical medicine (Dr. Bennett); one of most eminent teachers of obstetrics (Dr. Simpson); and the great Christison, and others of almost equal note.

Everything about the hospital is very plain and old fashioned, but comfortable. The amphitheatre or operating room is spacious and well lighted.

The average number of patients in the wards during the last year was 324; the greatest number at any time, 367; the lowest, 256; and the average time during which each patient remained under treatment was 33·1 days.

The total number admitted during the year, was 3,465. The total number under treatment during the year, 3,745. Of these, there were dismissed 3,137; died, 346; remained, 262. Of the cases treated to a termination during the year, only 168 were fever; 1,588 were ordinary cases other than fever, and 1,727 were surgical cases. We thus perceive a general mortality of about ten per cent., while the special results of fever cases are not furnished, which I regret very much. When we consider the nature of the bulk of these cases, we surely have no cause to blush for the general results of treatment in our Charity Hospital, where the patients are not half as well nursed as they are in this Royal Infirmary.

This brings one to the consideration of some of the peculiar *practical views* entertained and carried out by some of the Edinburgh Professors.

It is generally known that Professor Bennett eschews *blood-letting*, even in the treatment of the most inflammatory diseases; but I find that he now goes farther—that he eschews nearly every potent medicine; and having *jugulated* sanguineous depletion in every form, he is preparing to beard the Sampson *calomel,* and will soon attempt to prove that this fearfully popular drug is utterly worthless as a remedial agent—that *it does not act on the liver,* nor any other organ in a beneficial way. Shades of Cooke, Ker, Rush, Johnson, Armstrong and Abernethy, what would ye say to this? What a horrible delusion have all practitioners in Southern climes (excepting the Thompsonians, homœopaths and hydropaths) been laboring under from the days of Paracelsus down to the present benighted period! Our learned Professor seems determined to *out-Herod Herod;* and soon the infinitesimal homœopath will have to hide his diminished head, and cease to poison the people with his numerous drugs. We shall soon learn that the very best way to treat disease is to *give no medicine whatever.* (*Lucus a non lucindo.*) Now, I have no doubt that doctors have been in the habit of giving entirely too much medicine, and I readily admit that "it is God (*alias Nature*) that healeth all our diseases;" but at the same time I cannot help thinking that a skillful and judicious physician may sometimes lend a helping hand with great advantage.

In the surgical line, I learn that Mr. Syme but seldom uses a particle of mercury in the treatment of venereal diseases. He does not consider syphilis to be a *specific disease* that requires a *specific remedy,* and that would not naturally get well without it in the course of time; but that it is a much less serious affection, which has a natural tendency to ultimate recovery. He is decidedly of opinion that mercury *makes* a much larger number of *constitutional* cases than it *prevents* or cures. He also pronounces sarsaparilla perfectly worthless in syphilis. His chief reliance is on the iodide of potass. in secondary or constitutional cases. Such I understood to be the views of Mr. Syme, as expressed in a short conversation on the subject. I had the pleasure of making his acquaintance, and found him to be very affable and communicative. Mr. Syme is a man of low stature and rather slender form, an amiable expression of countenance, thin brown hair, and about sixty years of age.

I went to the Royal Infirmary on his clinical day to hear him talk and see him operate. His manner is exceedingly plain and unpretentious. He speaks low, and with marked Scottish pronunciation. When he entered the operating room he took a seat, and commenced speaking of the first operation that was to be performed—a case of simple *hare-lip* in a young child. He explained the nature of the complaint, mentioned the different methods of operating that had been resorted to, and spoke of the superior advantages of the *silver suture.* Mr. Syme here took occasion to remark that Europe was indebted to America for two of the greatest improvements in modern surgery—*the use of anæsthetic agents* and *the silver suture,* both of which he should apply to the case about to be operated on. He unhesitatingly accorded to our distinguished countryman, Dr. Sims, of New York, the entire credit of introducing the silver wire suture into surgical practice, notwithstanding the *envious* attempt that had been made to show that it is not a recent invention at all, but a thing long known to the profession. He said that a clever young surgeon from America, naming Dr. Bozeman, was over here last year, claiming to have made a great improvement on Dr. Sims' operation for *vesico-vaginal fistula;* but for his part he could not perceive the improvement. The whole merit of that great operation he said was due to the silver suture, which enabled the surgeons of the present day almost invariably to remove a loathesome infirmity that formerly defied the skill of the profession. He said a distinguished American surgeon had remarked to him last year that he thought it was time that America should begin to do something in return for all she had received from Europe. Dr. S. said he thought the latter was now amply compensated by the two great discoveries just mentioned.

You may readily conceive how much pleasure it afforded me to hear such compliments bestowed upon my countrymen at this celebrated seat of medical science.

Mr. Syme performed the operation for hare-lip and one or two others with great neatness, and then dismissed the class. There were some seventy or eighty students present, and among them, three or four young Americans. I observed one black negro and a mulatto in the class, and was told they are both smart fellows. One of them will graduate this year.

From this I went up to the University to hear Professor Simpson lecture. His subject was *ovarian dropsy*, and he was about half through when I entered. Dr. Simpson is rather short and stout built, with a handsome face, and a profusion of long dark hair. He is a very fluent lecturer, and seemed to be complete master of his subject, but I thought his manner somewhat affected. I was not introduced to him.

From this lecture I went up to the *dissecting rooms.* They are at the top of the building, and provided with no other than sky light. Dissection is all done by day in this institution. They have nothing but the plainest kind of old board tables that look as if they had been in service for at least a quarter of a century. There are some twenty-five tables, but nothing about this department is to be compared to the anatomical rooms of the New Orleans School of Medicine. Indeed I have seen nothing in England equal to ours. The same may be said of our cabinet of materia medica. The opportunities for the study of all the elementary branches of medicine are certainly very fine in Edinburgh, and then the place is so cool, quiet, and healthy, and the attention is so little distracted by shows, parades and such like nonsense, as to be peculiarly fitted for close application of the mind; but the knowledge of *our diseases* and their proper management will certainly have to be acquired at some other place, if acquired at all.

You will have perceived by the statistics previously given what a small amount of fever there is about this city these days. It would seem that the great attention paid to cleanliness, ventilation, and sanitary measures within these realms, of late years, has almost exterminated this terrible scourge of the human race. In former times London, Edinburgh and Dublin were infested with the most terrific forms of zymotic diseases, but they have now nearly disappeared. To what can this happy change be attributed with greater probability than the sanitary measures which have recently been adopted and enforced. When London was one of the *filthiest* places in the world, it was at the same time one of the *sickliest;* but now, when it is one of the cleanest, it is also one of the healthiest. It must not be concealed, however, that whilst such vast sanitary improvements have been effected in London, there exists an evil at the present day which calls loudly for correction, and must soon be removed, or else the most serious consequences may ensue. I allude to the foul condition of the Thames river water. This water is not used for drink, else its injurious effects would have been more strongly felt before this. Nor is it *stagnant*, but passes on in a pretty swift current. Recent microscopical examinations of the Thames' water have developed some curious phenomena which I must refer to at some future period.

I inspected many of the narrow streets and *closes* with houses of from seven to ten stories, filled with the lower classes of Edinburgh, and found everything comparatively neat and clean. You may rest assured that herein lies the great secret of improved health among the poorer classes in Great Britain that has been effected within the last few years. The *rich* have become convinced at last that even in their splendid palaces, abounding in all the luxuries of the world, they are not secure from the maladies of their neighbors the *poor*—that the primal germs of pestilential diseases originate in the miseries of their less fortunate fellow-beings, and that in improving their condition they increase *their own security.* When will our State and city authorities awake to the knowledge of this important truth? Not, I fear, till our *Necropolis* shall far exceed in the number of its human relics the living beings that throng the busy streets of our unfortunate city, and it shall become like Cairo and Alexandria of old, the *focus of infection* to a vast region around it! To improve the sanitary condition of New Orleans and remove the causes of disease would, of course, require a great deal of money and well directed labor, but the longer it is postponed the worse it will be; and if there be any truth in the old proverb, that "*an ounce of prevention is worth more than a pound of cure,*" the sooner we begin the good work the better. I pen these prophetic remarks, well knowing that they will not be heeded by those whom we have placed in authority, and may even excite a smile from some who can perceive no evil in *filth and putrefaction,* but they may be recalled and more justly appreciated long after the writer shall have passed away.

Before quitting Edinburgh I should mention that there are in the suburbs some seven or eight magnificent establishments called hospitals, but are really asylums for the support and education of poor children. These were erected and permanently endowed by benevolent persons who had accumulated immense fortunes during their lives, and chose this laudable method of perpetuating their memories.

All the water used for drinking purposes, in Edinburgh, is first filtered, and not excelled by any in the world.

Of the large city, Glasgow, which now has about six hundred thousand inhabitants, I need only say I rode extensively over it, and found it clean and healthy. It is soon to be supplied with water from Loch Katrine, about thirty miles distant.

I visited the Lock Hospital, and the Royal Infirmary, found very few patients in either, and nothing worthy of farther notice, save the great diminution of *fever* here within the last few years.

I shall here close this lengthy letter, and subscribe myself,

Very truly yours, etc.,

E. D. FENNER.

To Dr. D. W. Brickell, Ed., etc.

COMPOUND FRACTURE OF THE CRANIUM;

WITH DEPRESSION WITHOUT SYMPTOMS OF COMPRESSION.

By David McKnight, M. D., Seguin, Texas.

On the 8th of July I was called to see a little negro boy of Dr. Hampton's, who, I was told, had been kicked by a horse, and it was thought his skull was broken. I found the little fellow, a boy six years old, sitting up and looking very lively and wide-awake. On making an examination, I found a wound on the right side of the head, an inch and a half above the upper rim of the ear, and about an inch and a half in length, and of that peculiar crescentic form characteristic of wounds from a horse's hoof. The scalp was slightly torn up, but the temporal muscle was not cut through. I could scarcely believe there was fracture, so slight was the wound and symptoms. I was told the accident occurred two or three hundred yards from the house; he walked home and told what had happened.

Dr. H. called my attention to a depression that could be felt just behind the wound in the scalp. I could easily distinguish it, about an inch posterior to the wound, of the same form, only the crescent was reversed. I could feel no sudden offset or jagged edges to the bone; but the depression increased as I traced the line of fracture forward, until it reached the posterior lip of the wound, where, from the swelling, no depression could be felt. But reflecting on the nature and direction of the blow, I was satisfied the depression must be greater here than anywhere else. What was to be done, under the circumstances? There was fracture, with bone depression, beyond a doubt—the posterior lip of the wound and swelling concealing the extent of it. But there were no urgent symptoms; there was a very slight indistinctness in articulation, but not more than is common to negro children of this age. He could walk very steady; respiration and circulation were both natural; his pupils the same, in fact there was a total absence of each and every symptom of compression of the brain.

I was unwilling to leave him thus, in darkness as to the true state of the case; so we concluded to extend the wound to the bone, and ascertain the extent of fracture and degree of depression. On reaching the bone and dissecting back the muscle and pericranium, we were surprised to find a portion of the parietal bone (one and a half inches long and one inch wide) fractured, and the anterior portion driven in and slipped under the sound bone in front, and wedged so tight that a small probe could not be passed between.

The course of treatment was now clear. We sent a messenger for my colleague, Dr. Fennell, to bring the necessary instruments for elevating it. We extended the wound half an inch at each end, and with a small Hey's saw, took off one-eighth of an inch of the non-depressed portion of bone—the full length of the anterior line of fracture. We still found the bone held down pretty firmly at the corners, but succeeded in elevating it, drew the wound together with three stitches—which were necessary to prevent it from gaping, placed a few strips of plaster over it, and left the patient with Dr. H.

Before we completed the operation, the patient became very drowsy, and, in fact, went to sleep while the saw was in the bone. He complained of no pain, except when we cut the skin.

Dr. H. used cold applications to his head that night, cut the stitches next day, gave him a dose of magnes. sulph., kept him quiet and on low diet; and, without a bad symptom, he was well in two weeks.

The wound healed by first intention, except at one corner, which was kept open with lint.

Remarks. Was the operation justifiable? I know there is high authortity opposed to it when the symptoms are so trifling—the names of Abernethy, Sir Astley Cooper and others in the list. And equally high—Mr. Potts, Mr. Guthrie, Mr. Skey, and others, in favor of it.

But, in looking at the case, and considering the probable results had we failed to operate, I congratulate myself that we pursued the course we did.

Had the case occurred ten or fifteen miles in the country, and I had determined not to operate, probably by the time I had reached home, symptoms of compression of the brain would have come on, which, before relief could have been obtained, might have proved most disastrous to the patient.

SPECIAL SELECTIONS.

CLINICAL REPORT

ON CASES OBSERVED AT THE NEW ORLEANS CHARITY HOSPITAL.

By Austin Flint, M. D., Prof. of Clin Med., etc., New Orleans School of Medicine.

DISEASES OF THE HEART.

Several interesting and instructive cases of diseases of the heart were received in my wards during the session of 1858-9; and through the kindness of my brethren of the medical staff of the Hospital, I had an opportunity of observing cases which occurred in other wards. I shall select for this report, the cases which illustrate important points relating to the diagnosis, pathology, and treatment of cardiac diseases; and after giving, as succinctly as possible, an account of each case, I shall notice briefly, under the head of *Remarks*, the particular points in the clinical history, which claim the attention of the reader. In no province of practical medicine have the evidences of progress, during the last quarter of a century, been more marked than in that which embraces the diseases of the heart. The discrimination of these diseases, by means of physical exploration, may now be made with great precision; and the advancement in pathological and therapeutical views, although not so easily defined as improvements in diagnosis, is not less positive. But, it must be confessed, the attention bestowed by medical students and practitioners in general, on the study of this class of diseases, is not commensurate with their frequency of occurrence, their importance, and the facility with which the study may be prosecuted. It is, perhaps, not doing injustice to the medical profession of this country to say, that a large proportion do not undertake to make themselves practically conversant with the means of determining the existence of cardiac disease, and of recognizing the various lesions to which the heart is liable. More than this, not a few profess to be distrustful of the progress made, within late years, in diagnosis, especially as regards the reliability of physical signs, and in this way attempt to reconcile themselves to their own neglect of the subject, while they disparage the knowledge and skill which, by dint of industry, others have acquired. Reports of cases are highly useful if they serve in any measure to correct these false notions; and, in inviting attention to the few cases which will form the basis of this paper, I may use the language of an esteemed author, which I have borrowed on a previous occasion:* "Happy am I in my own estimation if I have stimulated the zeal of our young practitioners for the diagnostic studies which constitute, in my mind, one of the most beautiful parts of our art."

CASE 1. *Aörtic valvular lesions. Moderate enlargement of the heart. Coëxisting anæmia. The anæmia relieved by medical treatment, and the patient discharged complaining of no symptoms referable to the heart.*

Dan Mullen, aged 18, Irish, laborer, admitted December 4th, 1858. He stated that he had been unable to work for the preceding four months, and that he had not been perfectly well for several years. His chief difficulties for the four months before his admission related to the action of the heart and respiration. He was subject to palpitation and want of breath on exercise. Two years before, he had intermittent fever; and for eighteen months he had frequent relapses, but no relapse had occurred during the last four months. He had never had rheumatism, nor any acute chest affection.

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* Prize Essay, 1852. From Andry on Diseases of the Heart.

His aspect denoted marked anæmia. The prolabia appeared bloodless. He was able to be up, dressed and out of doors. He had been in the hospital twice previously, the first time four, and the second time two years before, and, as he stated, for the same aliments as now. Appetite was good, and no inconvenience felt from taking food. The bowels were constipated. No cough. Suffered from pain in the head and giddiness. He was easily put out of breath on exercise. The pulse was 80, and small, but regular in rhythm. Respirations 20. Urine acid and not albuminous. No œdema.

Physical Signs. A feeble apex-beat was felt in the fifth intercostal space on the verticle line of the nipple; and a stronger, synchronous impulse in the fourth intercostal space, just within the nipple. Areas of deep and superficial dullness on percussion, were somewhat greater than normal. The first sound of the heart at the apex was normal, with slight tinnitus; the valvular element was sufficiently marked. No heaving of the præcordia. A systolic murmur, slightly rough, was heard, with greatest intensity in the second intercostal space on the left side; feeble over the body of the heart, and still more so over the apex. It was propagated into the carotids. The second sound of the heart was more intense on the left than on the right side of the sternum at the base; and it was apparently aörtic on the left, as well as on the right side. Strongly marked venous hum existed on the right side of the neck, instantly and invariably suspended by deep pressure at the upper part of the neck.

The treatment consisted of the citrate of iron and quinia, with full diet.

December 20th. The treatment having been continued steadily without variation, the anæmia had nearly disappeared, and he reported himself quite well, complaining of no symptoms referable to the heart. He was discharged at his own request, feeling able to go to work. The venous hum had disappeared. The other physical signs remained without any change.

Remarks. This case presents a combination occuring not unfrequently, and highly important in a practical point of view, viz: organic disease of the heart and anæmia. In such a case there is a two-fold liability to error. The practitioner may attribute all the symptoms and the signs to the anæmia, especially if the latter be strongly marked. The palpitation, dyspnœa on exertion, etc., would admit of this explanation. The venous hum proceeds from this condition. And the cardiac murmur might be considered as inorganic or anæmic. A circumstance favoring the latter conclusion in the case just reported, was the murmur having its greatest intensity on the left side of the sternum at the base of the heart—a circumstance pointing to the pulmonary artery as the source of the murmur. With this view of the case, the cardiac affection would be regarded as purely functional. This would have been an error. The cardiac murmur was due to valvular lesions. This was shown by its roughness of quality, and its persistence after the anæmic had in a great measure disappeared, the venous hum having ceased. Moreover, the heart was clearly although moderately enlarged, as shown by the increased areas of superficial and deep dullness on percussion, the existence of impulse in two intercostal spaces, and the removal of the apex-beat to the left as far as the vertical line of the nipple. Although the cardiac murmur had its maximum of intensity on the left side of the sternum (which is an exception to the rule), it emanated from the aörta. This was shown by its being propagated into the carotids. The fact, too, of the second sound of the heart having the same characters, as regards quality and pitch, on the left as on the right side of the sternum, as well as greater intensity, showed that, for some reason, in this case the aörtic sound was transmitted more readily to the left than the right second intercostal space; the reverse obtaining in the majority of cases. This exception may have been owing to a slight change in the position of the heart, altering the normal relations of the aörta and pulmonary artery to the intercostal spaces.

On the other hand, the existence of organic disease having been determined, the practitioner may overlook the effects of the anæmia, and attribute all the symptoms to the organic disease. This error is more unfavorable to the interests of patients than the other. The organic disease was not sufficient, in the case reported, alone to give rise to much, if any inconvenience. The palpitation and dyspnœa were, in fact, due to the anæmia, or at least to the combination of anæmia and organic disease. When the anæmia was removed, these and other symptoms disappeared, and the patient reported himself quite well. In this point of view, the case is highly instructive. It happens not unfrequently, that a patient presents this combination of affections, when the distressing symptoms proceed mainly from the abnormal condition of the blood. The practitioner is liable to attribute all the symptoms to the cardiac lesions; and he consequently errs as regards the prognosis and treatment. I have met repeatedly with cases in which patients appeared to be in an advanced stage of organic disease of the heart, anasarca, even, being added to other symptoms, when, after removing the causes inducing anæmia (for example, lactation), and resorting to proper measures of treatment, the cardiac disease, so far as symptoms are concerned, seemed to disappear. Physical explorations, however, showed the continuance of signs denoting certain lesions; but, without the coëxisting anæmia, these remained innocuous.

It is not always easy to determine at once, when organic disease and anæmia are combined, to what extent the symptoms are referable to the anæmia. This becomes apparent after a time, when the anæmia disappears under the use of chalybeate tonics, stimulants, nutritious diet, and out-door exercise. But the uncertatinty, at first, as regards this point, does not affect the treatment. The therapeutical indications relate to the anæmia. It is always a prime object to remove this condition if possible. It may be laid down as a rule of practice, to which there are hardly any exceptions, whenever organic disease of the heart is associated with anæmia, the latter is to take precedence as regards treatment, and any measures addressed to the former, conflicting with those which are indicated by the anæmic condition, will do harm rather than good.

CASE. 2. *Aörtic valvular lesions, with regurgitation. Mitral valvular lesions, with regurgitation. Considerable enlargement of the heart. Absence of symptoms denoting cardiac disease.*

Hugh Horan, aged 11, admitted Dec. 5th, 1858. He stated that he was ill for a week only, prior to his admission, having previously been perfectly well. He is an intelligent lad, replying to questions clearly, and he declared that he has never been troubled with palpitation or want of breath; that he had been able to engage in sports as actively as other boys, and had never felt any inconvenience from violent exercise. He had never had rheumatism, nor any acute disease of the chest that he was aware of. Pulse 92, small and weak. Respirations 40.

Physical signs. The præcordia was abnormally prominent. The apex beat was felt in the fifth intercostal space, and extended half an inch without the nipple. The area of impulse in this interspace extended an inch. An impulse synchronous with that in the fifth, was also seen and felt in the fourth intercostal space, directly below the nipple. The fifth rib was raised with each ventricular systole. An artery of considerable size was seen and felt crossing the eighth rib, two or three inches to the left of the xyphoid cartilage. A soft systolic murmur had its maximum of intensity just without the apex, and was heard behind, near the lower angle of the scapula. It was heard over the body, and feebly at the base of the heart. At the base, on right the side of the sternum, in the second intercostal space, there was a rough systolic murmur. In the second and third intercostal spaces, near the sternum, on both sides, a systolic and diastolic murmur were present. The diastolic murmur was not heard elsewhere. The rough systolic murmur at the base, was heard with considerable intensity behind, at the upper part of the intercostal space. There were distinctly two murmurs behind; one low in pitch and rough at the upper part of the interscapular space, gradually diminishing as the stethoscope is carried downward; the other acute and soft, having its maximum behind, near the angle of the scapula, was diffused over the left lateral surface of the chest, and was loudest near the apex of the heart, preserving in these situations its characters as regards softness and pitch. The rough systolic murmur emanating from the base of the heart, was propagated into the carotids. The second sound of the heart was notably distinct and loud.

This sound was louder in the right than in the left second intercostal space, and no disparity as regards the pitch or quality of this sound existed between the two sides. The valvular element of the first sound over and near the apex-beat, was wanting; an element of impulsion was alone heard, and this was not marked.

The treatment in this case consisted of the sulphate of quinia, grs. ij, three times daily, and full diet.

On Dec. 8th, the patient reported much better. The pulse was 64 and the respirations 20.

Dec. 11th, he reported quite well; and, desiring to leave the hospital, he was discharged. The physical signs remained the same as at the time of his admission.

Remarks. This patient entered for a febrile attack (ephemeral fever) which apparently had no connection with the disease of the heart. After remaining in hospital six days, the febrile movement had disappeared, and he declared that he was perfectly well, as he had been up to a few days before his admission into hospital. Yet there existed in this case aortic lesions, permitting regurgitation, as shown by the systolic and diastolic murmurs referable to the aorta, together with mitral regurgitant lesions, as shown by the systolic murmur referable to the mitral orifice. Moreover, the heart was considerably enlarged, as shown by the situation of the apex-beat, the existence of two impulses, together with increased extent and degree of dullness on percussion. Hypertrophy predominated over dilatation, as shown by the force of the impulses, and the elevation of the fifth rib with each systole. The mitral lesions were more serious than the aortic, as shown by the extinction of the valvular element of the first sound of the heart, whilst the aortic second sound was scarcely if at all impaired.

The practitioner but little acquainted, practically, with diseases of the heart, might naturally be led to suppose that with aortic and mitral lesions, and also considerable enlargement, the condition of the patient must involve inconvenience, if not imminent danger. Yet this patient, a lad of eleven years, was able to participate fully in the active sports of childhood, and had never been conscious of palpitation or dyspnœa. Not a few instances of this description have fallen under my observation. Organic disease of the heart, especially in early life, as regards symptoms, is often entirely latent. Patients not only do not present symptoms pointing to the heart as the seat of disease, but they may appear to be in perfect health. The cardiac affection is often discovered, as it were, accidentally; physical explorations being resorted to without any expectation of finding any abnormal signs referable to the heart. The immunity from distress or inconvenience, may continue for many years. Sooner or later, however, if the patient be not carried off by some intercurrent affection, the symptoms of organic disease are declared.

The innocuousness, for an indefinite period, of lesions giving rise to valvular insufficiency and great enlargement, is a fact of great practical importance, not only in its bearing on prognosis, but as regards the pathology and management of organic diseases of the heart. In the great majority of cases, cardiac lesions have been innocuous for a long time before coming under the cognizance of the physician. In adults, they date often from an attack of rheumatism which occurred five, ten, fifteen or twenty years before. Now, what renders these lesions latent for such a length of time? In answer to this question, it may be said, the lesions, progressively increasing, and involving, more and more, either obstruction or regurgitation, or both, finally lead to so much disturbance of the circulation that the results are manifested.

This explanation is not complete. As a rule, valvular lesions are well borne, and often remain latent, so long as their immediate effects on the circulation through the heart are compensated for by hypertrophy of the organ. Hypertrophy is a conservative provision to obviate evils which would otherwise flow from valvular lesions. The natural tendency of obstructive or regurgitant lesions, is to induce hypertrophy. This occurs usually prior to dilatation; and so long as hypertrophy exists without much dilatation, the patient is comparatively safe, and perhaps even free from annoyance. But hypertrophy has its limit. Sooner or later it ceases to be progressive, and dilatation becomes predominant. Then the symptoms of cardiac disease are manifested; and from this epoch the condition of the patient involves suffering and danger. What is the practical inference from these facts? Plainly, that hypertrophy is to be encouraged rather than repressed. The treatment designed to lessen the hypertrophy occurring as a complication of valvular lesions, is, in fact, hurtful in proportion as it is successful. Dilatation and feebleness of the heart are the results to be dreaded, and, if possible, postponed. Hence, with the practical views which have heretofore prevailed, it has been fortunate for patients when the existence of cardiac disease has not been discovered; since, if the discovery were made, they were subjected to treatment addressed to the hypertrophy. Hence, patients with valvular lesions live longer, and with more comfort, if the body is well supported by nutritious food and habits of tolerably active exercise are maintained, than when they are placed on reduced diet, and the utmost quietude enjoined. In short, the rule of practice in cases of valvular lesions, is to nurture the vigor of the system, and the heart's strength, so as to postpone, as long as possible, the evil day when dilatation predominates over hypertrophy.

Case 3. *Mitral Lesions. Enlargement of the heart. Pulmonary emphysema. The cardiac disease latent.*

John Neil, aged 31, Irish, laborer, admitted December 10th, 1858.

He stated that twelve years ago he had acute articular rheumatism. He was confined to the bed for twelve days, and was not aware that he had any chest affection. He was well, and able to work constantly after the attack of rheumatism until two years before his admission, when, as he thought, he took a severe cold and was confined to the bed for a month. Prior to this there had been no palpitation nor want of breath on exercise.

A dry cough continued after the attack just mentioned, and after a couple of months he began to expectorate; cough and expectoration continued ever afterward. Both were slight, and had remained stationary, except at times when they were increased by a fresh attack of bronchitis. He had continued to work steadily up to three weeks before coming to the hospital. His cough then became more troublesome, the expectoration more abundant, and he experienced want of breath on exercise. He had had similar attacks repeatedly before, but less severe. The dyspnœa led him to enter the hospital.

On examination of the chest, the physical signs of emphysema of the left lung were sufficiently distinct, viz: vesiculo-tympanitic sonorousness over the left side of the chest; the left infra and supra clavicular regions abnormally full; absence of superior costal respiratory movements, on forced breathing, on the left side, while they were sufficiently marked on the right side; the respiratory murmur, vesicular and intense on the right side, feeble on the left side, and frequently accompanied by dry râles on the latter side.

The apex-beat was feebly felt in the fifth intercostal space, about one-eighth inch within the nipple. Deep dullness on percussion, or, in other words, the left border of the heart, extended nearly to the nipple. A soft systolic murmur was heard, having its maximum of intensity just without the nipple. It was diffused over the left lateral surface of the chest, and heard behind, at the lower angle of the scapula. It was quite indistinct over the body of the heart, and was lost at the base. The first and second sounds were notably more distinct and loud, at the base, on the *right* than on the left side.

The treatment in this case consisted of the iodide of potassium, gr. v, three times daily, a little morphia, and full diet. This treatment was continued steadily until January 18th, 1859. The chlorate of potassa was then substituted for the iodide of potassium. Progressive improvement, as regards cough, expectoration, and want of breath on exercise, continued up to February 4th, 1859, when the patient felt sufficiently well to leave the hospital. The cough and expectoration, at the time of his discharge, were quite small. The patient was confident of his ability to return to labor. The physical signs at the time of his discharge were essentially the same as when he was admitted.

Remarks. The mitral valvular lesions, in this case, probably originated in the attack of rheumatism twelve years before the patient came under my observation. These lesions involved considerable regurgitation and moderate enlargement of the heart. The regurgitation was shown by the diffusion over the left lateral and posterior surface of the chest, of the mitral regurgitant murmur. Yet, the cardiac affection had been latent, and except for the co-existing pulmonary emphysema, would have remained innocuous. In fact, after the bronchitis with which the emphysema was associated had been relieved, the patient complained of no symptoms referable to the heart. But in the course of time cardiac symptoms will become developed; and, eventually, the patient will suffer from the evils of organic disease of heart and emphysema combined, and both affections progressively increasing.

It will be noticed in the account of the physical signs, that the second sound of the heart, at the base, was more distinct and loud on the right, than on the left side of the sternum. The reverse is usually observed where mitral regurgitation has led to cardiac enlargement, owing to the diminished current of blood through the aorta and the reinforcement of the pulmonic sound, in consequence of hypertrophy of the right venticle. The coëxistence of emphysema of the left lung affords an explanation of the exception to the rule in this case. The pulmonic second sound may have been, in reality, more intense than the aortic; but owing to the interposition of emphysematous lung, the former was not transmitted to the ear of the auscultator so readily as the latter.

The combination of organic disease of heart and pulmonary emphysema, is not very infrequent. In this case the previous history shows that the former preceded the latter. The importance of exploring the whole chest, after cardiac disease has been discovered by the physical signs, is a point which this case may serve to enforce; for, otherwise, the emphysema being overlooked, all the symptoms would have been referred to the heart, while, in fact, they were due mainly to the emphysema. Incidentally, the efficacy of the iodide of potassium and the chlorate of potassa in relieving the bronchitis, which is frequently associated with emphysema and serves to perpetuate the latter, may be referred to. These remedies often appear to exert a therapeutical effect, under these circumstances, which is truly remarkable.

Case 4. *Pulmonic and tricuspid lesions. Slight aörtic lesions. One fold of the pulmonic valve wanting. Death. Autopsy.*

John Morris, aged about 30, admitted Dec. 15th, 1858.

This patient entered with indefinite ailments, and the previous history was not ascertained. The case did not receive much examination on the first day, and, the patient reporting and appearing much better on the two succeeding days, a full examination was deferred. The patient made no complaint of symptoms pointing to the heart as the seat of disease; but my attention was called to the existence of an endocardial murmur by one of my private pupils, Dr. Alston, of Texas. This murmur was systolic, emanating from the base of the heart, and notably more marked in the second intercostal space on the *left*, than on the *right* side of the sternum. A feeble murmur was heard over the carotids. The aörtic second sound, as compared with the pulmonic, had its normal relative intensity. It is not noted whether auscultation was practiced over the lower border of the heart.

On the fourth day after his admission, the patient presented, at my morning visit, great prostration, constant jacitation, and spasmodic inspiration. He shortly became comatose, and died during the forenoon.

The autopsy was limited to the chest and abdomen. The results did not explain the occurrence of sudden coma and death; and the case possesses interest only from a comparison of the cardiac lesions with the physical signs. The latter were not observed as fully as they would have been had the condition of the patient appeared to indicate immediate danger.

The heart, on examination after death, was found to be moderately enlarged. The walls of the left ventricle, at their thickest part, were estimated to be three-fourths of an inch in thickness. The cavity was not enlarged. The right ventricle was neither hypertrophied nor dilated. The aörtic valve presented on one of the semilunar folds a warty vegetation of the size of a pea, near the free extremity and situated on the ventricular aspect of the fold. The fold itself was thickened and projected into the artery. The lesions occasioned slight obstruction, but probably not regurgitation. The aörtic orifice was neither contracted nor dilated. The mitral valve was perfectly normal. The pulmonic valve consisted of but two semilunar folds, a rudimentary fold being situated between the two. Both folds were considerably thickened by deposit of lymph or fibrin on their ventricular portion. The folds were not contracted, and the valve was probably sufficient. The pulmonic orifice was slightly contracted. The tricuspid valve presented on the auricular surface a considerable mass of solidified fibrin, attached pretty firmly to the anterior segment. The mass was nearly as large as a small filbert. The segments were not contracted; the orifice was neither contracted nor dilated, and the valve probably was sufficient. The right auricle was not enlarged. It was greatly distended with liquid blood, and contained a few small, black, loose coagula. The autopsy was made three hours after death. The foramen valve was open sufficiently to admit a goose-quill.

The liver and spleen were greatly enlarged, the latter being four or five times its average size, and the former extending into the left hypochondrium.

Remarks.—Tricuspid and pulmonic lesions are extremely rare; but, in addition to this case, in the two cases which will follow, lesions were situated in the right side of the heart. In the foregoing case, the contraction of the pulmonic orifice and the absence of one of the folds of the semilunar valve, were congenital; and Dr. Peacock's researches show that in connection with malformations which are usually seated in the right side of the heart, consecutive valvular lesions are frequently observed.* The murmur heard with its maximum of intensity in the second intercostal space on the left side of the sternum, doubtless emanated from the pulmonic orifice. An aortic murmur had existed, which was propagated into the carotids.

The lesions were innocuous. There are no grounds for concluding that they were concerned in the illness and death of the patient.

CASE 5. *Tricuspid lesions. Undulatory movements, ventricular and auricular, of the jugular veins. Autopsy.*

This patient was not in my ward; and my notes of the case consist mainly of the results of physical examinations made by myself, together with the condition of the heart found after death as communicated to me by Dr. Mercer, Dr. Alston, and Mr. Devon, members of my private class. At the time of my examinations there was great distension of the abdomen from ascites, and the feet were enormously œdematous. The respirations were frequent and labored. The patient was unable to lie down, and suffered extremely from dyspnœa.

Physical Signs. A rough systolic murmur existed at and a little below the base of the heart, and was wanting over the apex. It was most marked on the left side of the sternum. It was propagated into the carotids. The veins of the neck were enormously distended, and presented a varicose appearance. Undulations in the external jugular were observed, occurring independently of respiration. These undulations did not correspond with the arterial pulse, one occurring before, and the other nearly synchronously with, the pulsation of the radial artery. This comparison was repeated several times with the same result. The venous pulsations were seen, but not felt. They were much more distinct on the right than on the left side, but the venous distension was more marked on the left side. When the circulation in the external jugular was arrested by pressure with the finger, the vein remained full, and it filled from below when emptied by pressure upward with the finger. Other points relating to physical signs were not noted.

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* On Malformations, etc., of the Heart. London, 1858.

The patient died in a few days after my examinations. The account of the morbid appearances of the heart, as furnished by the gentlemen who have been named, showed great obstruction at the right auriculo-ventricular orifice, from the presence of a firm false membrane, producing, with the exception of two small holes admitting a goose-quill, occlusion of this orifice. The right auricle was greatly enlarged, and its walls thickened. Both ventricles were hypertrophied and the cavities dilated. The pulmonary, aörtic, and mitral valves, were free from lesions.

Remarks. The interesting point in this case is the double undulation observed in the jugular vein, taken in connection with the extreme obstruction at the tricuspid orifice. The first of these undulatory movements, or that which preceded the radial pulse, must have been due to the contraction of the right auricle; the second undulation, or that occurring nearly synchronously with the radial pulse, probably proceeded from the systole of the right ventricle. I am not aware that the attention of clinical observers has been directed to the occurence of a double venous pulsation, *i. e.* two pulses each revolution or beat of the heart.

The appearance of the heart after death do not afford a clear explanation of the systolic murmur heard at the base of the heart with its maximum of intensity on the left side of the sternum.

The obstruction at the tricuspid orifice sufficiently accounts for the venous congestion, and general dropsy, symptoms which in this case were extremely marked.

(To be Continued.)

EDITORIAL AND MISCELLANEOUS.

We have the pleasing duty to chronicle again the continued health of the City, and its total exemption from yellow fever. Though the debilitating heat of a long summer has left its impress on many a languid countenance—though every one anxiously awaits the return of cool and bracing weather, and none more so than a poor editor, who must needs ply his pen, and set the example of industry in spite of thermometrical influences—yet we cannot but rejoice when we compare the present aspect of our city with the appearance it presented just one year ago. Then, indeed, had the "Angel of Death spread its wings on the blast," and every house mourned its dead; for the dreaded scourge did not, as of yore, limit its ravages to the foreign-born or the stranger, but the child of the soil perished as well, and the unmistakeable symptoms told but too well the name of the fell destroyer. What a strange dispensation! How mysterious its causes! Yet do we look forth with confidence to the time when the art of the physician must ascertain its nature, and probably discover its prevention and its cure.

It is, perhaps, a standing reproach to our city, that many points connected with yellow fever are almost as undecided now as they were twenty-five years ago; that no regular statistics of the disease have as yet been recorded; that no one has applied to its investigation that arduous and severe but faithful method, of which Louis and his disciples, of Paris, have furnished the best examples—a method which insists in recording case after case, at the bedside, noting each symptom, observing the effects of medicine, not with pre-conceived notions, but with the view of discovering the truth; this is the only method by which we can at last arrive at positive conclusions. Medicine is an inductive science; we should not be in too great a hurry to generalize, and we cannot generalize correctly when we trust to our impressions alone, or to a limited number of facts.

We say that it may be imputed as a reproach to our medical men that labors of that kind have not been given to the world; but when we take into consideration the temperature, the exhausting climate, the sad scenes by which the physician is constantly surrounded, in an epidemic of yellow fever, we cannot wonder that all his zeal, all his industry are at fault, and he throws down his pen disgusted with his task. Thus it is that labors, which under some circumstances are easy and even pleasant by the very mental stimulus they require, are at other places and times heroic in their conception, and superhuman in their execution. But as we have had Louis, on typhoid fever and on phthisis, as we have had Grisolle, on pneumonia, and Valleix, on neuralgia, so we shall have at some day a monograph on yellow fever, which shall be for its author a monument as glorious and as durable as e'er sculptor chiselled from the marble of Pentelicus and Paros.

We say, then, that *the* work on yellow fever has yet to be written; and though we value highly the contributions which have already been made by many of our confrères, such as Delery, Coxe, Faget, Dowler, and others, we nevertheless look with confidence to a more serious work. The medical profession at large does not expect from us a picture drawn from memory, however vivid its details, however beautiful its execution; they ask for proofs of what we urge, and they want us to paint for them individuals and not ideal types; they want the sequence of events as we see them hour after hour, and not our cold analysis in the closet; they want post-mortem examinations, microscopical and chemical analyses; they want all the appliances of modern science in the investigation of disease, and above all things, they demand in therapeutics that remedies should be tried singly, that their effects should be noted, else no progress can be made, no satisfaction obtained; for, like Penelope, we undo to-day the labors of yesterday.

We have been led to the above observations and retrospective views by an attempt to review some of the monographs we have cited; we think they are, for the most part, with the exception of Dr. Delery's, amenable to the reproach of giving the views of the author without leaving us any opportunity to see for ourselves on what grounds they have predicated their conclusions; they show us the portrait, and hide from us the original; therefore it is that a review of such work is really a very difficult task. We might, from memory alone, have arrived at different conclusions; but where is our right to contradict, or our authority to approve. Give the profession facts and observations, and let them analyze and conclude for themselves.

EXCERPTA.

On the Treatment of Chronic Organic Diseases of the Heart.—*By Professor Lebert.*—The treatment of chronic organic diseases of the heart offers one of the most difficult tasks to the practicing physician; it is nevertheless certain that a proper and thorough treatment of these diseases may do a great deal toward alleviating the condition of the patients, and toward prolonging their lives. Prof. Lebert advises especially great care with blood-letting, purgatives, and all debilitating measures in the treatment of organic diseases of the heart. In valvular disease he employs venesection but very rarely. If in the course of the disease an acute inflammation, in the form of pericarditis or endocarditis, occurs, it is often useful to abstract blood to the amount of six ounces by means of cups or leeches; if, after this, an energetic treatment is still necessary—much advantage will be obtained from the application of a large blister, and the endermatic use of half a grain of morphia daily. The author's observations on the use of digitalis we may omit as generally known. Most allied to digitalis, in regard to its therapeutic effect, is aconite. Although it acts less heroically and more slowly than digitalis, and does not decidedly diminish the frequency of the pulse, aconite is nevertheless a remedy which is capable of lessening considerably the dyspnœa, palpitation, and the various subjective symptoms of the patient, even the tumultous excitement of the heart. A very important point to be considered in the treatment of advanced diseases of the heart, is the general cachexia and debility of the patient gradually developed. Lebert has examined for several years the muscular structure of diseased hearts, in order to see how far the gradual decrease of the functional capacity of the same depends upon changes in the muscular fibre itself. From these investigations it results that very frequently a small degree of fatty degeneration of the primitive cylinders of the muscle of the heart exists, even in cases where the color and consistency of it does not indicate the fact. The gradual increase of general debility and of the local weakness of the heart, the progress of anæmia and hydræmia, lead to the question, what effect tonics, especially iron, would have in organic disease of the heart.

The better the patients are nourished (with avoidance of strongly stimulating food) the longer they resist the evil influence of the disease; the patient should, therefore, not be restricted to a vegetable diet, but a moderate amount of animal food should be allowed with it. Of beverages, tea, coffee, alcoholic liquors, and wine in large quantities ought to be avoided, whereas infusion of cocoa, or decoction of roasted acorns, are very appropriate, particularly for breakfast. Light beer, or small quantities of old wine mixed with water, may be allowed at the table. Besides an analystic diet, the use of iron is indicated, particularly in the later anæmic, and cachectic period of the disease. Lebert recommends especially iron reduced by hydrogen, (gr. ij at each meal), or twenty to twenty-five drops of the tinctura ferri pomati, if necessary, in connection with equal parts of tincture of aconite. The tartrate of iron and potassa (three to five grains three times daily) is a very useful preparation, and as the effect of iron is perceptible only then, when its use is persisted in for a long time, it is necessary, occasionally, to make a change in the preparation employed. The author has not derived much advantage from the application of blisters, setons, and moxas.—*Wien. Medizin. Wochenschrift*, 1858, No. 51, and *Mediz. Neuigk.*, April 2, 1859.

CAUSE OF THE TENDENCY OF RED-BLOOD CORPUSCLES TO ARRANGE THEMSELVES IN PILES: *By C. Robin.*—In an interesting paper upon the anatomy of the blood corpuscles, M. Robin thus speaks of the numulated arrangement so often noticed in recently drawn blood: "This fact has in it nothing which allies it to the vital properties of the anatomical elements in question. It is only a consequence of a commencement of alteration in the blood globules placed outside of the vessels and in a serum which is slightly modified." M. Robin then affirms, that whenever the phenomenon of coherence is seen it is due to a viscous and tenacious transparent matter, which is exuded, from the globules, and holds them together when the currents in a drop or in a bowl of blood bring them into contact face to face. To prove the existence of this tenacious layer, M. Robin relies upon these facts: When the piles of corpuscles are formed as usual, it is possible to break them up by pressing upon the cover glass, when they will separate and at last reunite to other corpuscles, so as to make new groups. When this manœuvre is made with moderate force, it will be seen that there is some difficulty in completing the separation. The globules glide in one another, until they are attached only at the edge, the two globules elongating under the pressure employed. When at leghth the separation is complete, so that a distinct space exists between the two globules, they will reapply themselves one to the other, as before, if the pressure ceases. It is evident, therefore, that while thus to appearance seperated the globules are bound together by a perfectly transparent, but glutinous matter. In some lights and by proper management, it is even possible to see the viscous substance in question. M. Robin thinks that this viscous exudation is due to a slight concentration of the serum in which float the globules.—*Jour. de Phys.*, April, 1858.

THE ANATOMIST'S HYMN.

BY OLIVER WENDELL HOLMES, OF BOSTON.

Not in the world of light alone,
Where God has built his blazing throne,
Nor yet alone in earth below,
With belted seas that come and go,
And endless isles of sunlit green,
Is all thy Maker's glory seen:
Look in upon thy wondrous frame—
Eternal wisdom still the same!

The smooth, soft air with pulse-like waves
Flows murmuring through its hidden caves,
Whose streams of brightening purple rush
Fired with a new and livelier blush,
While all their burden of decay
The ebbing current steals away,
And red with Nature's flame they start
From the warm fountains of the heart.

No rest that throbbing slave may ask,
Forever quivering o'er his task,
While far and wide a crimson jet
Leaps forth to fill the woven net

Which in unnumbered crossing tides
The flood of burning life divides,
Then kindling each decaying part
Creeps back to find the throbbing heart.

But warmed with that unchanging flame
Behold the outward moving frame,
Its living marbles jointed strong
With glistening band and silvery thong,
And linked to reason's guiding reins
By myriad rings in trembling chains,
Each graven with the threaded zone
Which claims it as the master's own.

See how yon beam of seeming white
Is braided out of seven-hued light,
Yet in those lucid globes no ray
By any chance shall break astray.
Hark how the rolling surge of sound,
Arches and spirals circling round,
Wakes the hushed spirit through thine ear
With music it is heaven to hear.

Then mark the cloven sphere that holds
All thought in its mystic folds,
That feels sensation's faintest thrill
And flashes forth the sovereign will;
Think on the stormy world that dwells
Locked in its dim and clustering cells!
The lightning gleams of power it sheds
Along its hollow glassy threads!

O Father! grant thy love divine
To make these mystic temples thine!
When wasting age and wearying strife
Have sapped the leaning walls of life,
When darkness gathers over all,
And the last tottering pillars fall,
Take the poor dust thy mercy warms
And mould it into heavenly forms!

Punch on Homœopathy.—Mr. Punch is accustomed to receive letters and treatises, imploring him not to call homœopathy fudge, and some of them attempting to assign reasons why he should not. In all these communications, the medical opponents of homœopathy are called "allopathists." "Allopathist," as contradistinguished from "homœopathist," of course means a person who treats diseases with other medicines than those which produce similar diseases, that is, who endeavors to cure unlike with unlike, instead of endeavoring to cure like with like. Who are the allopathists? Mr. Punch has an extensive acquaintance, but he does not know any. No intelligent medical practitioner attempts to cure diseases in general with specific medicines of any kind. There are very few such medicines known to the medical profession. The principles on which diseases, for the most part, are treated by rational and scientific physicians and surgeons is that of removing impediments to the natural process of recovery; or that of assisting the curative efforts of nature, not necessarily, and not always, by causing people to swallow drugs. When drugs are given by such practitioners, they are generally given with a view to their indirect influence on disorders. For instance, the combination popularly known as the "black and blue reviver," which directly affects internal parts of the trunk, may be "exhibited" for the relief of a headache, or for the removal of an inflammation of the great toe.

Professor Holloway is perhaps an allopathist; however, he does not tell us on what principle his pills and ointment cure all diseases. The various doctors who advertise their patent medicines in the quacks' corners of newspapers of the baser sort, may be allopathists also; and likewise the medical profession possibly contain a few fools or impostors who are so describable. But the few specifics used in the ordinary practice of physic may absolutely even act on the homœopathic principle, that "like cures like;" thus differing from homœopathic doses only in not being infinitesimal, and, Mr. Punch supposes, in being efficacious.

In none of the communications about homœopathy received by Mr. Punch, is there anything like scientific proof that infinitesimal globules produce any other than infinitesimal effects. Cases of alleged cures, subsequent to the swallowing of these globules, prove nothing, until they amount to enormous numbers. Professor Holloway, and Messrs. Du Barry & Co., adduce plenty of such proofs; perhaps not fictitious. Mere swallowing and cure can be concocted as cause and effect only by immense clouds of cases in which the cure is almost the invariable sequence of the swallowing. It does not signify whether the thing swallowed is a great bolus or a pill the size of a pin's head, containing an invisible dose.

Quinine is acknowledged, on the strength of a vast accumulation of evidence, as a remedy for ague. It cures ague in one grain, two grain, three grain doses. Will quinine or anything else, in infinitesimal doses, cure ague as obviously in an equal number out of a vast multitude of cases? Will an infinitesimal quantity of sulphur exert any curative influence on that cutaneous affection which delicacy expresses by the euphuism of "the Caladonian violin."

Mr. Punch's homœopathic friends forget that statements of facts which are contradictory to common sense and received science, require rigid proof. None of them propose any method by which the active properties of an infinitesimal globule can be demonstrated. Neither homœopathists, nor mesmerists, nor spiritualists, either offer or accept the test of any *experimentum crucis;* and when Mr. Punch asks for it, they answer by abuse, and the comparison of themselves to Galileo, and those who laugh at them at the inquisition.—*Med. News.*

CHLORIDE OF ZINC IN GONORRHŒA AND GLEET.—M. Longouest, of Paris, recommends the injection of a solution of chloride of zinc (one thousandth part in recent and one five hundreth in old cases) once daily, and retained in the canal four or five minutes.

There does not appear to be any thing in the results he obtained in recent urethritis to recommend the practice over that of other well known remedies, but in the treatment of gleet he had much better success. In seventeen cases, most of them obstinate, and which had been treated in vain, the mean duration of treatment with the chloride of zinc injections was nine days. The remedy usually caused no pain, and was very rarely followed by accidents.—*Gaz. des Hop.*

THE USE OF SICKNESS.—"My old nurse, Mrs. Patrick O'Toole," said cousin Jerry, "was a woman of logical mind. I was very sick once, and the Doctor left me an atrociously bitter drug, which I declined taking. But Mrs. O'Toole carried the day. 'It's the Doctor's orders,' cried the good lady; and if you don't go by the Doctor's orders, it ain't no use for you to be sick at all.'

"I swallowed the Doctor's scruples as well as my own."

LITHOTOMY.—A report from the principal hospitals in England, reveals the fact that during the year 1858, the number of cases had been forty-five which had been operated upon. Of these forty-two recovered and two died. One of the latter was a man aged sixty years, who had been a sufferer from stone four years. He died on the third day after the operation. The other was a man aged twenty. The stone was large and encysted, and there was much difficulty in extracting it. He died on the fourth day after the operation.

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MEMOIR ON THE HYBRIDITY OF ANIMALS.

By ANTHONY PENISTON, M. D., Prof. of Physiology in the New Orleans School of Medicine.

Hybridity is the result of the crossing of different species of animals, and as the fruits of these ill-assorted unions, from the Minotaur downwards, have been considered sterile and incapable of propagating themselves, this negative quality has long been assumed as the best test of difference between animals, warranting, therefore, their classification under different species. It is probable that the familiar instance of the mule, or the result of the cross between the ass and the mare, has had much influence in accrediting this opinion. Later investigations, however, have shown that no rule can be laid down, *à priori*, on this subject, and that the universal sterility of hybrids is about as correct as the Ptolemeian system of astronomy. The fact is that the sterility of hybrids has been taken for granted without sufficient proof, pro or con, and is certainly not an infallible test of distinction between animals. No one would contend that the goat and the sheep do not belong to different species, yet it is now an established fact that the offspring of the union between the buck-goat and the ewe is fruitful.

Recent experiments have shown that several other hybrids are also fruitful. Indeed, this subject has many practical as well as scientific applications; and we propose, in the following pages, to set forth some facts which have been recently published in Paris.

We are indebted for these views and opinions to our learned confrère, Doctor Paul Broca, of Paris; to whom we have already expressed our obligations in the preceding number in the memoir on the varieties of mankind. In the last number of the "Journal de Physiologie," which has just reached us, we have found the sequel of this interesting subject, and shall endeavor to present a bare abstract of this article for the benefit of our readers.

The result of the crossings between animals of different species can only be demonstrated by experiment, and no rule can be laid down, *à priori*, on this subject.

Thus it is that an animal may have sexual intercourse with an animal of a different species, though they may not procreate. On the other hand, the male of one kind may procreate with a female of another species when a male of the latter would not impregnate a female of the former, or it may be that, both sides may be equally fruitful. We might term the former kind unilateral hybridity, the latter bilateral hybridity.

Thus, says Buffon, experiment has shown that the result of the union between the male of the goat and the female of the sheep is fruitful, but the union of the ram and the female of the goat is not fruitful.

This, however, is one of the few cases of uni-lateral hybridity; it more generally happens that both crossings are fruitful, though one may be uniformly more productive than the other. Thus the mule, or the result of the crossing between the ass and the horse, is more easily obtained than the cross between the jinny and the horse.

And, strange to say, it has been ascertained that the hybrids resulting from those races wich are most easily crossed are themselves the least fruitful. Thus the mule is generally barren, but the result of the cross between the hare and the rabbit is exceedingly prolific.

There is another singular property attendant upon the procreative qualities of hybrids, viz: that some which would be sterile with hybrids of the same degree and species are nevertheless fruitful when crossed with either of the parent species. It has also been observed that certain hybrids which are fruitful with each other, even at the first crossing, would nevertheless fail in perpetuating the race, unless renewed by fresh accessions from the parent races.

It appears, therefore, that many different races of animals are susceptible of having sexual intercourse with each other, though these unions, from some cause or other, are not necessarily fruitful, and if fruitful in the first degree are not necessarily bound to propagate their newly created species; whereas, others, on the contrary, seem to have no limits to their fruitfulness. It must be borne in mind, however, that many experiments of the kind have failed on a small scale, because, from the want of fresh individuals of the same kind, the experimentors have kept on crossing a few individuals with each other, brothers with sisters, parent and offspring, until these incestuous unions have resulted in perfect degeneration and barrenness. A great many curious questions naturally present themselves on the subject of hybridity. It may be asked what is the physical explanation of unilateral hybridity, as in the case of the goat and the sheep? Does it depend upon the period of gestation of either of the species, upon the conformation of the organs of generation, upon the similarity of the ovaries, or of the spermatozoa, or upon the rank which the animals are supposed to hold in the hierarchy of races? Of late years no department of natural science has received more advancement than that of embryology, and yet how far are we from possessing any data upon which we could proceed to answer the above questions. Like the cause of the difference of sexes, their solution is yet hid by the veil of time.

It is true that under this subject of hybridity the mooted question of the distinction of races again springs up, and that many philosophers have denied either the validity of the experiments, or that the races thus crossed were really distinct from each other. Thus, says Pritchard, many persons yet doubt that the dog and the wolf are of distinct species, and John Hunter believed that the dog and the jackal were the same animal, the former being only modified under the influence of domesticity. Even Doctor Carpenter has asserted, that the dog may be nothing more than a tame wolf; but any one must have an immense amount of credulity to accept such an assertion in lieu of argument, for there are numerous specific differences between the wolf and the dog. The howl of the wolf can not be compared to the bark of the dog, any more than the braying of the ass with the neighing of the horse. It is a well known fact that the wild dogs of South America, which have remained in a savage state for several hundred years, have retained all their characteristics, and are as far from becoming wolves as they were in the beginning; they continue to bark like the domesticated dog, showing that this is a natural and not an acquired quality. Moreover, the wolf has resisted every attempt to domesticate it, and nothing has ever been adduced to show that a wolf can be transformed into a dog, or a dog into a wolf, after however many successive generations.

We are, therefore, constrained to admit that the dog and the wolf are two distinct species of animals, and that their hybrids are fruitful in every degree; but Doctor Broca in his interesting memoir has also shown that the sterility of the mule has been taken for granted, perhaps too readily, though it cannot be denied that in this respect they are inferior to both of the parent races. We doubt not, however, that if it could be demonstrated to be to the interest of breeders to propagate any cross of the mule with either of the parent species, it would be found that the mule is not so barren as is commonly supposed. Besides the mule there are several other hybrids of the genus *horse*. Thus the zebra is productive both with the horse and the donkey. It is well known that there are two varieties of mules; one which is the issue of the jack, and the mare; the other called by the French, bardeau, is the issue of the stallion and the jenny. These two varieties of mules have been known from the most remote antiquity, and Aristotle distinctly mentions them. The former kind is by far the most common, though the latter seems, for some reason or other, to be preferred in the Kingdom of Naples. It is generally supposed that the bardeau, or the offspring of the jenny is smaller and less docile than his cousin the mule; but this may be a popular prejudice, and it is very possible that if the same care were taken in importing enormous jennies, and crossing them with the largest stallions, as is done by selecting at great cost the largest jacks to breed from, it might be that the much abused bardeau might contest the palm of size, as he certainly would carry off that of elegance of form from his overgrown and long-eared relative, the common mule.

In each of the these varieties of hybrids the characteristics of the parents are still easily recognized. They resemble the dam in the body; the sire in the head and extremities. Thus in the mule we recognize the short, thick head of the jack, its long ears, bony legs, and thin, scanty tail; on the other hand the bardeau has a narrow but long head, its ears are shorter, its legs more muscular, and the tail more bushy, like its sire, the horse. There are other peculiarities in this parallel between these two varieties of hybrids which are curious enough. Every one has observed on horses those horny productions which are found on the inner side of the four extremities, midway between the knee and the shoulder. In the ass those excrescences are found on the anterior extremities alone, and they are smooth instead of being rough and hard as in the horse. Now in the two varieties of mules these excrescences have characteristics common to both sets of parents. Thus the number is always derived from the father; their nature from the mother. The bardeau has four excrescences like the father, but they are perfectly smooth like the mother; on the other hand the mule has only two, and they are rough.

Besides this, it has been shown that the orbital arch of the bardeau resembles that of the horse; in the mule, it resembles that of the donkey. The maxillary sinus of the horse is divided into two antra, which do not communicate, though they do in the donkey; the mule inherits this peculiarity from his father; in the bardeau they have not been examined, but they probably follow the law of resemblance to the sire. The larynx of the ass is much more complicated than that of the horse, being especially characterized by a deep depression of the thyroid cartilage, which has been described by Herissant under the name of the *drum.* This anatomical difference must have its physiological signification, and the braying of the ass is said to depend upon this peculiarity in its larynx. The mule which brays like its sire, has also the drum; but the other hybrid neighs like the horse, and has probably the same structure of the larynx. There are some other structural differences between the ass and the horse, though they are not as invariably transmitted by hereditary descent as the preceding. Thus the ass has five lumbar vertebræ, and the horse, six; some mules have been found to have five, and others six lumbar vertebræ.

The question of the sterility of the mule has been anatomically studied, without, as yet, throwing much light on the subject. It appears that both varieties of mules have all the necessary organs of generation. The females have their periods of heat, and the male emit a spermatic fluid, though much contestation seems to exist as to its generative qualities. The latest authorities, however, admit that they have found it to contain spermatozoa, though perhaps some mules are deficient in this respect. It is probable, on the other hand, that a mule of either sex might prove fruitful if crossed with the opposite sex of the parent species, and it is probable that in those cases in which it has really happened, the credit of the doubtful paternity, from the more than suspected impotency of the mule, has been bestowed upon some neighboring donkey. It is evident, therefore, that except the experiment be conducted with scrupulous care, doubts would attach to the procreative powers of the male mule. With the female, however, whatever be the sire, there could be no doubt in the case. The parturition of the mule has long ranked among fables, and like a crowing hen, supposed to be a presage of dire misfortune. It has now been completely divested of its supernatural signification, and is only rare because seldom attempted.

The female of the mule gets in heat every spring; its ovaries, which have been examined by Mr. de Nanzio, do not appear to differ from those of the mare or the jenny. The ovule presents the discus proligerus, the zona pellucida, the vesicula, the vitellus, and the germinative spot. And yet it must be that this ovule, anatomically perfect, is deficient in some respects since it is but rarely fecundated. It has been observed that the mules are oftener fruitful in warm climates than in the temperate zone. The occurrence is very rare in France, and all the known cases have taken place in Spain and Italy, or under the tropics. It is said that in tropical Asia the mules frequently conceive; but as their parturition is exceedingly difficult, they and their offspring generally perish. It appears, moreover, that the Cæsarian section has been successfully resorted to in these cases. Though it cannot be denied that the fertility of the mule is exceptional, there are many authentic cases in which they have proved fruitful, and their progeny survived many years; one of these is known to have lived to a very old age, and to have done good service in the Neapolitan cavalry.

We have, in the instance already cited of the goat and the ewe, another instance of hybridity, for these animals do not belong to the same genus, much less to the same species. Buffon, in his great work on natural history, was the first to draw public attention to the cross between the goat and the sheep. In Europe, this variety of hybrid has not been cultivated, and, in fact seldom attempted except for the purpose of experiment. It appears, however, that in some parts of South America, and especially in Chili, the hybrid between the goat and the sheep is raised in large quantities.

They are said to be twice as large as the ordinary sheep, and are covered with a species of wool which is very long and soft. These furs are exceedingly valuable, and much esteemed in South America, where they are used for many different purposes, such as carpets, bed-covers, saddle ornaments, and a variety of other purposes. This race of hybrids is very fruitful with each other, and with the goat especially. The hybrids of the half-blood are not the best, the hair is long, but rough and straight. This first generation is again crossed with the sheep, and their offspring furnish the most valuable fur; so that these hybrids are three-fourths sheep, and one-fourth goat. Yet these quadroons have a tendency, after three or four generations, to return to the goat-type; their wool or fur becomes very harsh and rough, and it is found necessary again to change the breed. For this purpose the females of the latter are crossed with the males of the half-breed, thus giving a hybrid which contains three-eighths of the goat, and five-eighths of the sheep. Mr. Broca observes that these hybrids are thus shown to be fruitful with each other and with the parent race, affording at the same time an example of unilateral hybridity, since the issue of the ram and the goat is totally unknown in South America.

The cross between the wolf and the dog is an example of bilateral hybridity, for the offspring are fruitful with each other and with both of the parent races. Besides these there are numerous other examples of hybridity; as, for instance, between the buffalo and the cow, between the different species of camels, and between the lamas, the alpaccas and vigognias of South America—all of the latter being animals of distinct species, though their hybrids are perfectly fertile. We have yet to speak of another variety of hybrids, which are exceedingly curious, not only as another important step in the accumulative evidence gathered by Mr. Broca, with great learning and talent, in defence of his opinion, but as exceedingly interesting in a practical point of view, viz: as a means of supplying an excellent article of food.

The hybrid to which we refer is the result of the cross between the hare and the rabbit. Of late years this race of animals has been cultivated with great success by Mr. Alfred Roux, a gentleman residing in Angoulême, France. Mr. Roux, who is said to be a very intelligent man, and president of an agricultural society in his province, has succeeded admirably in obtaining the cross between the rabbit and the hare. His experiments were not undertaken to disprove the unity of the human race, but in order to procure a race of animals which would have the size and the delicacy of the hare united to the greater reproductive qualities of the rabbit, and his more economical appetite; questions evidently of immense practical importance to any one going into the business on a large scale. Indeed, they seem to have been perfectly solved, and Mr. Roux supplies the market of his native town with several thousands of these interesting and excellent hybrids. The weight of the French rabbit one year old is about six pounds. The wild hare weighs about eight pounds, but in captivity they rarely exceed six pounds. Mr. Roux's hybrids at a year old weigh commonly from eight to ten pounds; several have been found to weigh as much as twelve and fourteen pounds, and one actually weighed sixteen pounds; it measured two feet four inches in length, and its skin, which was preserved, had a most beautiful fur. But this splendid result was not obtained without cost and trouble. The hare and the rabbit are two distinct races of animals, which, in their natural condition, are perfectly antagonistic to each other.

They do not differ as much anatomically as they do by their instincts, tastes and habits. The rabbit is a gregarious animal, the hare lives perfectly alone; the rabbit burrows in the ground or in hollow trees, where they breed and rear their young brood; the hare, on the contrary, lives above ground, and only conceals himself in the brush and shrubbery. The period of gestation in both cases is thirty days, but the hare only bears two or three times a year, and brings forth from two to four young; the rabbit, on the contrary, bears as often as eight times a year, and brings forth never less than four, and generally from six to eight young at a birth.

Everybody knows that the rabbit is easily domesticated, and that the tame rabbits multiply in great abundance. But all attempts to domesticate the hare have failed, and they never breed in captivity; moreover, the hare and the rabbit are at war with each other; the hare, though larger, is generally driven away by the rabbit, and hunters are aware that they are never found together; in fact the rabbits must be destroyed before the hares will multiply. Besides these differences, the flesh of the hare is red, that of the rabbit is white; and the two kinds of meat have a different taste and smell; the small intestines are longer in the rabbit than in the hare, but the latter has a longer cæcum though the large intestine is shorter than the rabbit's. The color of the hare is of a brownish red; that of the rabbit an iron grey. These two animals inhabit, from time immemorial, the same climates and the same countries, and live upon the same food, yet they have ever remained perfectly distinct, and could never have had a common origin.

Buffon had made several unsuccessful attempts to cross the hare and the rabbit; so much so that he finally declared it impossible. Mr. Roux commenced his experiments in the year 1847, and three years afterwards had so far succeeded that he found it expedient to continue his operations on a large scale. Mr. Broca visited this establishment in 1857, and found there several generations of these hybrids; he says, that looking at the various intermediate types between the hare and rabbit, and their different grades of color, he was reminded of the public promenades in Havana, where all shades of transition are found, from the pure white to the jet black. He again visited Mr. Roux, in 1859, and found his establishment in a very prosperous condition; the hybrids were larger and more beautiful than either of the parent races. In order to succeed in obtaining this cross-breed the hare must be taken when very young, say two or three weeks old, and brought up in company with female rabbits, entirely separated from any males of their own species; then the hare gradually losses much of its savage nature, and the rabbits accept him as their natural lord; so that they are actually cheated into an unnatural marriage, though the bans would be soon broken if they discovered their mistake. Mr. Roux has not tried the converse experiment or the union between the male rabbit and the female of the hare.

The rabbits when breeding to the hare generally bear from six to eight young. The hare is kept separated from the female rabbits, and they are only put together during one night when the latter are in heat. The hybrids of the half-blood have more resemblance to the hare than to the rabbit; their fur has a slightly reddish tinge, but the grey of the rabbit evidently predominates; the ears are longer than those of the rabbit, and they are intermediate in size between the two parents. These hybrids are very fruitful with each other, and with either of the parent races. There is no peculiar advantage in propagating these half-breeds; for a better result is obtained by crossing them over again with the hare; and they become, therefore, quadroons. Unlike their namesakes in the human species, they resemble the rabbit more than the hare; whereas the beautiful quadroon resembles more her ancestors of European origin than her Congo grand-mother. These quadroon rabbits, however, are not very prolific, they do not bear more than from two to five young, approximating to the hare in this respect, though otherwise resembling the rabbit; on this account Mr. Roux crosses the quadroon with the half-breed, and obtains an animal which is three-eighths rabbit and five-eighths hare. These are quite as large as the quadroon and far more prolific; they grow very fast and have more flesh than any other variety. The ordinary rabbit is worth about a franc in the market of Angoulême; Mr. Roux's three-eighths hybrids command readily double the price at four months. The flesh of these animals is darker in color than that of the rabbit, and far more delicate to the taste, having, it is said, some resemblance to that of the turkey. Altogether they are a very interesting quadruped, and we hope some enterprising man will imitate Mr. Roux's example on this side of the water. A variety of the hare exists in great abundance in Texas; it is an exceedingly wild, but large and beautiful animal to which the French hare is a perfect pigmy. If a cross could be obtained between these and the rabbit we should have a race of giants, the produce from which would be worthy the great State whence they came.

Such are some of the curious facts connected with the subject of hybridity; and, in giving them to our readers, we have been more prompted by their utilitarian point of view than by their importance in support of the great dogma they unequivocally maintain. At all events, it will appear that, as with a great many other physiological questions, we are still on the threshold of the science, and we may, at an early day, stumble upon some facts which shall overthrow all the theories of the past. So far, we are not able to generalize on the subject; for neither the apparent proximity of species, nor their instincts, nor their mode of life, nor their structure, nor their period of gestation, allow us to draw any inference as to the fruitfulness or sterility of their union. But we look forth with impatience to the conclusion of Doctor Broca's article on the hybrids of the *genus homo*.

PARIS CORRESPONDENCE.

PARIS, July 22, 1859.

After spending eleven days in Paris as pleasantly as the almost insufferable heat of the weather would allow, and being on the eve of departure to seek a cooler place among the glaciers of the Alps, I must endeavor to give you some of my impressions in regard to medical men and institutions in this great metropolis of science.

It has been my custom, since arriving here, to go every morning at 8 o'clock to some hospital or other for the purpose of seeing some of the distinguished men with whose names we are familiar in America, and witnessing their manner of examining, prescribing, operating, and lecturing. I have visited the following institutions—the Charity Hospital, Hotel Dieu, Clinique, Midi, Lariboisière, the School of Medicine, and the College of France.

At *La Charité* I saw the venerable and renowned Velpeau and Dr. Briquet. I fell in with M. Velpeau just as he was entering his wards, and went round with him. He is a man of medium size, with thin grey hair, and apparently well preserved for his age, which I believe approaches three score years and ten. He examined his patients very carefully and gently, at the same time making facetious remarks, which frequently excited laughter among the students, of whom there was a goodly number in attendance. After finishing his visit he went into the amphitheatre to deliver a clinique. This consisted of a simple review of the most interesting cases in his wards at the time, again interposing witty remarks, which excited mirth among the students, though hardly displaying a smile himself. A case that called forth some of these remarks was a man who had a *chancre,* but protested he had not caught it in *the legitimate way.* The lecture was delivered in the plainest conversational style, without the least effort at display.

Of M. Briquet I have only to say I saw him examine and prescribe for several of his patients. It was he, you recollect, who announced last year that the seat of pain in lead colic was in the abdominal muscles, and was most readily relieved by the application of electro-magnetism. I have not yet tried this remedy in such cases. It may be very good to relieve the pain, but surely that is not all that is necessary to be done in the treatment of lead-poisoning. M. Melsens has taught us how to remove the poison from the system and thus effect a radical cure. Can electro magnetism do this? If it cannot, it is only a *palliative,* and farther experience is required to prove that it is better than any of the palliatives we possess already.

At the *Hotel Dieu* I went round with Jobert de Lambulle and Trousseau. Mr. Jobert is a distinguished surgeon, but is more noted for operations on *vesico-vaginal fistula,* I believe, than for anything else. I was told that he still persists in his former method, by the *silk suture and the dorsal position,* and does not recognize the improvement introduced by our countrymen, Drs. Sims and Bozeman. I saw a case that he had operated on a few days previous, and there was another waiting.

I had the pleasure of seeing the celebrated Trousseau visit his wards. He is one of the finest looking men I ever saw. His service is extensive, and he prescribes with promptness, but it was hardly anything but *diet* and *drinks.* To one or two patients, who had furred tongues, he prescribed a few grains of calomel and a saline draught. Dr. T. speaks English pretty well, and was very courteous. He enunciates the French very distinctly, as if he were in the habit of lecturing to those who are not familiar with the language, which is the case to a considerable extent. He does not lecture at this time.

At the *Hopital des Cliniques* I went round with Nelaton and Paul Dubois, names familiar to us in America. They are both portly and fine looking men, with grey hair and healthy complexion. After his visit, M. Nelaton gave a clinical lecture after the manner of Velpeau, before-mentioned. A case of stone in the bladder was brought in, on which he performed lithotrity the third or fourth time. M. Nelaton's manner is very quiet and pleasing, and his enunciation is clear and distinct.

M. Dubois is exceedingly mild and gentle in his attention to the sick, displaying much sympathy with his *petites filles*, as he calls them. He has a large and peculiar-shaped head, presenting some resemblance to a pile of blocks or bricks, but evidently well filled with brains. He did not lecture.

At the *Midi*, I went round with M. Bouchut, a fine looking young *agregé*, who is now performing the service of M. Ricord. After going through his extensive wards and prescribing with dispatch, he went to the amphitheater and performed two operations, one for *varicocele*, and the other, *resection of the testis.* The first he did very neatly, by the subcutaneous ligature of the veins. The other was a shocking operation. The right testicle was enlarged to nearly the size of the fist, and was very hard and nodulated. The cord was somewhat enlarged as also some of the inguinal glands, but the appearance of the man was healthy. The tumor was pronounced *non-malignant*, and it was decided to remove it. Chloroform was attempted to be given by inhalation through a single tube inserted into one of the nostrils, but it was so slow in producing its effects that the surgeon got out of patience, and he proceeded with the operation while the poor patient was still but too sensible of pain. His sufferings were truly agonizing, and I must confess that I was not only shocked, but astonished to witness such a scene in a Parisian Hospital at this enlightened day. The operation was performed in a bungling manner, and I should not be surprised if the patient be lost. M. Bouchut said he had seen Dr. Bozeman operate for vesico-vaginal fistula, and was much pleased with his method.

Lariboisière is one of the most extensive and perhaps the finest hospital in Paris. The buildings cover an immense space, and are only two stories high. It is comparatively new, and has many advantages over the old hospitals. I here found the distinguished surgeon Chassaignac, and accompanied him through his wards containing 102 beds. He is a remarkably pleasant man, and exceedingly gentle in his service. I saw him examine and apply a solution of the nitrate of silver to a number of uterine cases, but he had no operation to perform, nor did he lecture.

I went to the *Hopital Saint Louis*, which is devoted to cutaneous diseases, but not finding M. Cazenave there, as I had expected, I did not take time to examine the institution.

I should have mentioned under the head of the *Midi* Hospital that the institution is devoted to venereal diseases, and contains a great number and variety of cases. This is the theatre of the celebrated Ricord, who now has recess till the 1st of September.

I now come to the most interesting thing in the professional line that I have seen in Paris—it was my visit to the distinguished physiologist, M. Claude Bernard, at the College of France. I was accompanied by my polite and obliging friend, Dr. McIlvain, of Cincinnati, who was here in 1852 with our confrères, Choppin and Beard, and returned last year to renew his studies under the great masters. He has devoted special attention to physiology, and, of course, has become intimate with M. Bernard. At our first call I presented my letter from Dr. A. Peniston, and was most cordially welcomed both by M. Bernard and his colleague, M. Leconte. After a pleasant conversation of half an hour, M. Bernard invited us to return two days afterwards to see one of his physiological operations, which we gladly promised to do, and took leave. Having noted the personal appearance of other distinguished medical men whom I have met over here, I may be expected to do the same of M. Bernard.

He is tall and well proportioned—has a large head, with black hair and whiskers; eyes black, or very dark; complexion pale, expression brilliant and cheerful. In short, he is one of the handsomest men I ever saw.

At the appointed time Dr. McIlvain, Prof. Ford, of Nashville, and myself, called upon him at his laboratory. The experiment selected was to display the function of a gland and the change it produces in the color of the blood passing through it. For this purpose he selected the sub-maxillary gland of a large dog that was bound on the table.

With wonderful celerity he exposed the gland and laid bare its duct, blood vessels and nerves. He then divided the duct, which emitted an extremely small amount of saliva. He then put some sharp vinegar into the dog's mouth, which caused vigorous efforts to swallow, and immediately the saliva streamed from the divided duct in great quantity. After the effect of the acid passed off, the gland again became quiescent and the saliva ceased to flow. He then applied the electro-galvanic wire to the fifth nerve leading to the gland, and immediately the flow of saliva became profuse again. When the wire was removed the discharge ceased after a few minutes. Having again set the gland in vigorous action, he removed the wire from the fifth nerve and applied it to a branch of the sympathetic, that likewise entered it. The effect was an almost instantaneous arrest of secretion. This was repeated several times, plainly showing that the action of one of these nerves *increased* the function of the gland and the other *arrested* it. He then divided a vein coming out of the gland while in a quiescent state, and showed that the blood was of the usual venous color and its current normal; but on applying the wire to the fifth nerve again, the current was immediately accelerated and the color of the blood became bright red. He now removed the wire to the sympathetic, and the effect was to diminish the flow and change the color of the blood to venous again.

These observations served to demonstrate the action of different nerves on the function of a gland and also the effect of that function on the blood. The extension of such observations may be turned to useful purposes, not only in explaining the phenomena of health, but also of disease and therapeutics. We all know how often the secreting organs are found deranged in *fever* of all kinds, and how desirable it is to find remedies that will restore them to a healthy state. They are the depurators of the blood, which, without their important office, would soon become a poisoned stream, bearing death instead of life to every part of the system.

M. Bernard is very expert with the knife, and undoubtedly a perfect anatomist.

I examined the library and museum of the School of Medicine; the former is very extensive, and the latter contains some of the most admirable anatomical preparations that can be imagined. The finest of these were presented by candidates at the various *concours* of different periods, and bear the names of the individuals who prepared them. The library and museum present quite an exciting scene at the present time, as the examinations are going on and are publicly conducted in these halls. Groups of professors were to be seen in different places examining small classes of students, in the midst of a crowd of anxious spectators whose turn was to follow. It was here that I saw the venerable and distinguished Andral, with whose name we have so long been familiar. He looks to be in good health. I there saw, also, Bouchardat, Tardien, Piorry, and others not unknown to fame. While the examinations were going on with some, other students might be seen busily engaged posting up on anatomy and other branches.

I might write you much more about what I saw in Paris during this visit, but the weather is so oppressively hot that I cannot do the labor. I shall leave for Switzerland to-morrow, and endeavor to find a cool place among the glaciers of the Alps. From there I shall go to Italy and Germany, and return to Paris about the first of September, when I may give you another letter about medical matters in this great capital. I shall then call on MM. Robin, Ricord and other notables. I have had the pleasure of meeting here two of our graduates, Brantly and Lyles, who seem determined to perfect themselves as far as possible before going into practice. I must here take occasion to express my obligation to young Dr. Huard of our city for his great kindness in conducting me to the hospitals and other places of interest to a stranger in Paris. Dr. H. is going through the regular course of study here, and has already passed several examinations. I must here close, and subscribe myself,

Very truly yours, etc.,

E. D. FENNER.

To Dr. D. W. Brickell, Ed., etc.

ON THE STUDY OF MEDICAL JURISPRUDENCE.

By Jas. S. Harrison, M. D.

In the present article, I wish to call the attention of the profession generally, and of *medical students* particularly, to the importance of the study of *legal medicine;* a science, as its very name imports, belonging equally to the *physician* and the *jurist;* a critical knowledge of which, is quite as important, in a practical sense, to the one as to the other, as we might very readily demonstrate. That *physician* who has been called upon to occupy the stand of a witness in a case involving important interests; that *advocate* whose duty it has been to examine such a witness; and that *juror* upon whom it has devolved to decide upon the merits of the case at issue, cannot but have felt the great importance, in the proper discharge of their respective duties, of some acquaintance, at least, with the leading and fundamental principles of medical jurisprudence.

It is a fact, which I presume will not be questioned by any intelligent member of either of the professions of law or medicine, that by far *too little attention* is paid to this important subject, not only by the majority of our medical colleges, and the students of medicine and law, in the course of their professional education, but also by the practitioners of these learned professions, after they have received the honors of their respective institutions; but we trust, that in this regard, a brighter and better day is dawning upon us, and that the time is not very remote when every *medical school* will be regarded as *incomplete in its curriculum of studies* where this science is not taught, and where, at least, a respectable knowledge of *forensic medicine* will be regarded as an *essential element* in the legal and medical education of every gentleman who may aspire to either of these professions.

Perhaps the best and most comprehensive definition of this science with which we have been presented is that given by Mr. Chitty, in his work on this subject. He says, substantially, "Medical Jurisprudence, in its most extensive sense, is the science by which anatomy, physiology, pathology and surgery, as well as their collateral branches, are made subservient to *public health*, and the *protection from personal injury*, and to the formation, elucidation and administration of the laws in relation to the same subjects; and it therefore resolves itself into two great divisions, viz: first, into *forensic medicine*, comprehending the evidence and opinions necessary to be delivered in courts of justice relating to criminal and other matters to be there determined. And secondly, into what has been termed *medical police*, which embraces the consideration of the policy and efficiency of certain legal enactments and regulations, designed to promote the general health and physical welfare of the community. It embraces, likewise, an acquaintance with so much of medical science as is necessary for the elucidation of legal subjects, and a knowledge of the existing law, and the rules of evidence as applicable in all cases where medical science and its subjects can become the objects of inquiry in courts of justice."—*Chitty Med. Jur., p.* 4.

This truly admirable definition of Chitty alone, we should think, presents this subject in a light so clear, strong and practical, as to be quite sufficient to induce every student, especially, to pay particular attention to it in acquiring a knowledge of either of the professions, of law or medicine, as it exhibits a most intimate and beautiful connection between the two. It is the link which binds them together, and that, too, for purposes of the highest practical importance in social life. Hence, we contend that the course of instruction in any school of law or medicine *is defective* where this department of our profession is neglected. And no intelligent student can, consistently, do otherwise in selecting his place of instruction than to *give preference* to that college in which *legal medicine* receives a full share of attention. I may, perhaps, take an exaggerated view of this subject, but the longer and more thoroughly I investigate it, the better satisfied I become of its great practical importance.

One of the leading objects of medical jurisprudence is to point out to the physician those cases of *real* or *supposed* crime on which he may be required to give professional evidence in a court of justice. The distinguished Farr, in his element of this science, has well said that "there is a kind of medical knowledge which is not so much concerned in the *cure of disease* as in the *detection of error* and the conviction of guilt."

And in view of the fact that physicians and surgeons are liable at any time to be called upon to give a professional opinion, before a judicial tribunal, in regard to some particular transaction, involving not only the highest ordinary earthly interests, but even *human life* itself, it is certainly of the utmost importance that they should be thoroughly acquainted, not only with the ordinary subjects of their profession, but likewise with the leading and great principles of legal medicine.

The eloquent and learned Haslam, as justly remarked, that the important duty which the medical witness has to perform when summoned before a court of justice, "should be clearly defined, conscientiously felt, and throughly understood."

His opinions should be conveyed in plain language, and in a perspicuous manner, always avoiding, as far as practicable, all *technicality* and " vain show of learning." Neither should he ever attempt to palm upon the court, the mere trash of medical hypothesis as the apology for crime, nor should the unfortunate *mono-maniac* receive his cure on the block, or the gallows, as has some times been the case, in consequence of the *culpable imbecility* of medical evidence. The physician should never enter the court room merely to *give his opinion*, he should be fully prepared to explain it when required to do so, and should be able to afford the reasons which have influenced him in forming his conclusions. And indeed, without such elucidation, *opinion* becomes a mere worthless, or powerless dictum, "laying claim to precedence without courtesy or obligation to science."

Sometimes it happens, that Judges, forgetting that mercy should always lean towards the acused, in all cases where the evidence is not clear and decisive, will receive the *bare opinions* of medical men, and condemn an innocent victim to an ignominious death. Such unfortunate results would seldom, if ever, occur if legal and medical men were well and thoroughly instructed in the principles of medical jurisprudence, and would be governed in their *testimony* and *decisions* according to these principles.

There is, perhaps, scarcely any situation in which a medical practitioner can be placed, that so powerfully menaces his reputation, and where so much personal uneasiness is endured, as that of being called upon the stand, for the purpose of rendering professional evidence in an important criminal case.

The *ordinary duties* of the physician lead him into the by-paths of society, where he has to do, chiefly, with the sick and dying, in the presence of a nurse, and a few anxious friends, who alone are permitted to witness the kindness of his heart, the worth of his efforts, and the triumphs of his skill. But here it is otherwise. The eyes of the court, and jury, and community are upon him; every ear is ready to catch his words, and every tongue to give them to the fore-winds. The manner of his testimony —his conduct at the time—his information as there developed, are all laid open to public gaze, and subjected to public criticism.

And he may, in the progress of one important judicial investigation, either blast his reputation forever as a physician, or acquire the highest honor as a man of science. At such a time everything with him, both as to character and fortune, depends upon his *being ready*, which readiness implies a thorough *knowledge of his subject* and a *knowledge of himself*.

An other very important object in studying medical jurisprudence is to learn to *systematize* and *arrange medical facts*, so that the physician shall not be confused or confounded when performing the duties of a medical witness.

It is to be supposed that every *honest man*, previous to commencing the practice of physic, is qualified safely and successfully to discharge the responsible duties of his profession—that he is, at least, well acquainted with the great principles of medical science; yet, I will venture to say that unless he has been taught *systematically* to reflect upon those cases which are so often the subject of *medico-legal* investigation, he will, not unfrequently, when suddenly called upon to render professional evidence, find himself wandering in a labyrinth of error and perplexity, which cannot fail to expose him to the very unpleasant consequences to which I have alluded.

It were better for an illiterate physician "that he had not been born" than, under the circumstances to which I have referred, to fall into the hands of a *shrewd, sharp,* intelligent criminal lawyer. He will, by the severity of his investigations and his cross-examinations, make him forget what little he thought he knew, and in the estimation of the community, make him appear as the very embodiment of quackery.

How important, then, that every medical man should unremittingly study to show himself approved in every department of his profession, "and to be thoroughly furnished unto every good work in it," or pertaining to it, "that he may always be ready to give a reason" for his opinions, whether they be in relation to the practical duties of his vocation or the more intricate and less familiar functions appertaining to the science of forensic medicine.

But in illustrating still farther the importance of the study of this science, I may remark that the numerous outlets to life and avenues to death, which surround us on every hand, render it necessary that medical men should often be called upon to decide as to the cause of *suspicious,* or sudden death; for example, a man may be found dead upon the highway or elsewhere; no *visible marks* of violence are found upon him by which it might be supposed he came to his untimely end. A coroner is called, a jury is summoned to investigate the *probable cause* of his dissolution. The body is to be opened; the *brain*, the *thorax*, or the abdomen, is to be examined. Who but a well instructed physician or surgeon is capable of performing this duty, and of discriminating between the appearances of health and disease in the parts or organs to be examined? Who but the intelligent physician or chemist can analyze and detect the subtle *matter of poison* in the stomach, and pronounce with certainty that it produced his death?

Who but the educated physician can tell the absolute fatality of wounds; whether the victim came to his death by the inhalation of noxious vapors, whether he *committed suicide* by the means alledged, or whether *murder* was committed by the hands of an other?

So of drowning, and of all those suspicious and unknown causes of death which so often occur.

These are momentous inquiries, and in some instances, the highest interests of individuals, as well as of a whole community, are involved in a proper and scientific investigation of these and kindred questions.

And, with the exception, perhaps, of the operative branches of surgery, there is no subject which requires a more *correct* and minute knowledge of anatomy and physiology than the one under consideration. And, at least, a respectable knowledge of *analytical chemistry*, is wholy indispensable to the medical jurist in the proper discharge of his professional duties. Without the knowledge to which I have now referred, the medical man can neither *investigate satisfactorily*, nor *testify intelligibly* in many cases requiring a medico-legal examination. And I may be permitted to say, with all due deference to the legal profession, that, without a good degree, at least, of this same kind of knowledge, the *Attorney* must necessarily fail, in the examination of a medical witness, to elicit many important facts in certain criminal cases, which, if brought out in evidence, might throw a flood of light upon an otherwise dark and intricate subject, and which, without such elucidation, must remain veiled in obscurity forever; and in many instances leaving the *innocent to suffer* and the guilty to go unpunished.

How important, then, is some knowledge of law to every physician, and equally important is some knowledge of medical science to every legal gentleman who would excell in his profession.

CHAMPAGNOLLE, ARK., August 20th, 1859.

(To be continued.)

SPECIAL SELECTIONS.

CLINICAL REPORT

ON CASES OBSERVED AT THE NEW ORLEANS CHARITY HOSPITAL.

By AUSTIN FLINT, M. D., Prof. of Clin. Med., etc., New Orleans School of Medicine.

(CONTINUED FROM SEPTEMBER NUMBER.)

CASE 5. *Large accumulation of calcareous deposit within the right ventricle. Tricuspid obstruction. Obliteration of pulmonic valves. Occlusion of the right branch of the pulmonic artery by an embolus detached from a calcareous mass within the right ventricle. Fatty degeneration, and attenuation, of the walls of the right ventricle. Pulmonary tuberculosis.*

A heart presenting the extraordinary lesions enumerated in the above caption, was taken from a subject in the dissecting-rooms of the New Orleans School of Medicine, and presented to me by Dr. Grall, Demonstrator of Anatomy in the School of Medicine.

I saw the patient on one occasion at the Charity Hospital, through the courtesy of Dr. Nichols, Demonstrator of Anatomy in the University of Louisiana, and made a cursory examination of the chest. He presented the signs and symptoms of advanced pulmonary tuberculosis. A feeble, endocardial, systolic murmur was heard at the apex of the heart, and not at the base. The stethoscope was not carried to the lower border of the heart. A murmur, as Dr. Nichols informed me, had existed at the base, and was observed to diminish and finally disappear as the heart became weakened.

The heart was considerable enlarged in volume, the transverse diameter exceeding the vertical. The right ventricle exceeded the left in length and width. The normal relations of the two ventricles, as regards size, were reversed. The weight of the organ, including the branch of the pulmonary artery containing the calcareous mass, weighed 13½ oz. The right auricle was greatly dilated, and the left auricle moderately so. The mitral and aortic valves were normal. The right ventricle was traversed by a column of calcareous matter, an inch in length and about the size of the thumb. It was attached to the muscular band connected with the anterior curtain of the tricuspid valve near the ventricular septum, and extended across the ventricle to the anterior wall. The anterior curtain was pressed downward so as nearly to close the tricuspid orifice, producing extreme obstruction at this orifice. The other curtains could not be seen. Rough, projecting masses of calcareous deposit were attached just below the situation of the pulmonic valve, but not extending to the site of this valve. The folds of this valve appear to have shrunken away; their vestiges only existed. In the left branch of the pulmonic artery there was a mass of calcareous matter as large as a pullet's egg, which occluded entirely this artery. This calcareous mass evidently had been detached from another mass within the right ventricle, situated just below the site of the pulmonic valve; the surface from which the former had been broken off from the latter was apparent. The mass within the artery was, thus, an embolus derived from the right ventricle. The right ventricle contained an abundance of soft, dark coagula and colorless fibrin. The open spaces between the trabeculæ were filled with soft, gelatinous-like fibrin. At the lower extremity, the walls of this ventricle were quite thin—not more than two lines in thickness. Everywhere the walls of this ventricle were attenuated. The ventricular walls, especially of the right ventricle, presented, in a marked degree, the gross and microscopical appearances of fatty degeneration. The organ was extremely soft and flabby.

The tuberculous disease of the lungs was most advanced on the right side, *i. e.* the side in which the pulmonic current was unobstructed, the left branch of the pulmonic artery being entirely occluded.

Remarks. I had an opportunity of examining the appearances which the heart presented after death. It would have been interesting to have ascertained whether the smaller branches of the pulmonic artery contained deposits of calcareous matter. The interest of the case consists in the remarkable character and extent of the lesions, and their situation in the right side of the heart. The connection of these with the physical signs, is not satisfactory; but my examination of the patient was brief, and made a day or two before death, when the action of the heart was extremely feeble.

CASE 6. *Aortic lesions. Enlargement. Angina pectoris. Death. Autopsy.*

George Snow, aged about 40, laborer, applied for medical aid at the Dispensary of the New Orleans School of Medicine, Dec. 30, 1858, and was referred to me by my colleague, Prof. Crawcour. His ailments had commenced two months before. Prior to that date he had never felt any want of breath, or palpitation, even on the most violent exertions. He had been accustomed to extremely hard labor, in loading boats, etc. He had always considered himself as a robust man, up to the preceding two months. Had never had rheumatism.

His ailments distinctly denoted angina pectora. He suffered from severe pain, in paroxysms, referred me to the præcordia and left forearm, not shooting into the shoulder, but limited to the forearm, and accompanied by a sense of paralysis of the muscles. The heart palpitated violently during these paroxysms, as if, to use his own words, "it would jump out of the mouth." The paroxysms at first were slight. They gradually became more intense, and also more frequent, and had obliged him to give up work a month before he applied at the Dispensary. At the time of his application, they recurred daily, and were excited by any active exertion. A paroxysm was induced by the effort of mounting the stairs at the college. The paroxysms lasted usually about five minutes. When perfectly quiet, in the intervals of the paroxysms, he was free from pain, and the action of the heart was tranquil. The paroxysms were sometimes excited by the act of eating. Were it not for these paroxysms, he felt sure that he would be able to work without difficulty. His muscular power was good; his aspect healthy; his appetite and digestion excellent, and he complained of nothing but the paroxysms.

Physical Signs. Moderate heaving of the præcordia was felt on palpitation. The apex-beat was in the sixth intercostal space, slightly without the verticle line of the nipple. An impulse was also felt in the fifth intercostal space, just within the nipple. In both situations the impulse was strong and sluggish. The extent and degree of dullness on percussion in the præcordia, were considerably greater than normal. The outer limit of the deep cardiac region was without the nipple. In the right second intercostal space, near the sternum, a faint, soft murmur accompanied the systole. It was heard only in that situation. Over the body of the heart, near the left margin of the sternum, a murmur accompanied the diastole. This murmur was feeble, soft, and low in pitch. No other murmur was discovered. The second sound of the heart was distinct in the second intercostal space on the right side, but louder on the left side. This sound was lost at the left nipple and apex. At the nipple, the first sound alone was heard, and was purely valvular, the element of impulsion being eliminated when the stethoscope was carried to this point. Over the apex, the element of impulsion predominated strongly over the valvular element.

The patient was not again seen by me till Feb. 3, 1859, when he was admitted into my ward at the Charity Hospital. In the meantime, the paroxysms of angina had become more and more frequent and severe. They now occurred at short intervals, and were excited by slight causes, such as a little muscular effort, and the act of eating solid food. His sleep was disturbed by dreams which appeared to him to produce paroxysms, and he was afraid to sleep from an indefinite apprehension. He had not been able to lie down for many nights before his admission to the hospital. The paroxysms were accompanied by dyspnœa and a sense of suffocation.* In the intervals, he breathed without difficulty. There was considerable œdema of the lower extremities. The pulse was regular, and had considerable volume. It was not notably jerking, and the visible pulsations of the superficial arteries was not marked.

A diastolic murmur (aortic regurgitant) only, was observed after his admission into the hospital. Death occurred suddenly, during a paroxysm, on the second day after his admission.

On examination after death, there were no evidences of pericarditis; but the surface of the heart presented numerous small patches of ecchymosis. The heart weighed 18 oz. The transverse and longitudinal diameters were equal, viz, 6⅜ inches. The form of the organ was not altered. The enlargement was due mainly to the increased size of the left ventricle. The walls of the left ventricle were three-fourths of an inch in thickness, and the cavity dilated. The walls of the right ventricle were one-eighth of an inch in thickness, and the cavity not dilated. Auricles of equal capacity, as determined by the eye. Mitral and tricuspid orifices presented nothing abnormal. The walls of both ventricles presented the appearance of healthy muscular tissues; no change denoting fatty degeneration. The deposit of fat was rather more abundant than usual on the right ventricle near the base. The pulmonic valves were perfectly normal. The aortic valves were also healthy—no deposit or thickening, or alteration of size. Above the valves the aorta presented notable disease. The artery was dilated. At the base of the semilunar folds the dilatation was not marked, the circumference measuring 3⅝ inches. An inch above the upper margins of the folds the circumference was 4¼ inches. The dilatation extended as far as the artery was removed with the heart, viz, from two to three inches. The coronary arteries were not obstructed. There was no calcification, and a probe penetrated freely for a considerable distance. The lining membrane of the aorta above the valve was opaque, velvety, easily stripped off. The fibrous coat was thick and firm; no atheroma anywhere. On both lateral surfaces of the artery just above the upper margins of the valvular folds were cavities precisely equal in size and general aspect. They presented the appearance of perforations, as large as a half dime, leading, on each side, to a *cul de sac* half an inch in depth. These cavities were filled with coagula, firm, but not adherent. About an inch above these cavities, on the right side, were two irregular depressions, each of the size of a dime, resembling ulcers with smooth edges, the fibrous coat apparently eroded. An inch above, on the left side of the artery, was a pouch-like dilatation of the size of a filbert, the fibrous coat wanting.

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* It is stated incorrectly by Watson (Lectures,) that dyspnœa does not enter into paroxysms of angina.

Remarks. Angina pectoris is an affection always dependent on organic disease of the heart; but the particular morbid condition with which it is connected is yet to be ascertained. It is a very rare affection, while organic disease of the heart is sufficiently common. It occurs in connection with different forms of organic disease; but there is doubtless some undiscovered feature common to these different forms, which stands in immediate relation to the phenomena of angina. The morbid appearances of the heart in the foregoing case have been given with minuteness of detail, in view of our ignorance of the proximate cause of angina. The affection in this case was associated with disease of the aorta and enlargement of the heart. Statistics show that it is oftener connected with lesions situated at or near the aortic orifice than elsewhere, and perhaps this is the sum of our present knowledge concerning its source. The appearances in this case disprove two hypotheses which have been offered on the subject, one of which attributes the angina to calcification of the coronary arteries, and the other to fatty degeneration of the heart. The latter hypothesis is maintained by some distinguished writers. In a negative point of view, *i. e.*, as disproving these hypotheses, the case is of value.

It is worthy of remark, that in this case, although the aortic disease and the enlargement of the heart must have existed for some time prior to the occurrence of the angina, there had previously been no symptoms pointing to cardiac or any disease. The patient was able to take violent exercise without inconvenience; and, apparently, as he supposed, if the paroxysms of angina could have been averted he would not have been compelled to give up labor.

CASE 7. *Rupture of the heart. Fatty degeneration.*

A subject received from the hospital, for dissection, at the New Orleans School of Medicine, presented, on opening the chest, the pericardial sac largely distended with blood. All that could be learned of the history of the case was, the patient had been admitted with delirium tremens, and died suddenly, without any suspicion having been entertained of the cause of death. The subject was a male, and the appearance denoted about sixty years of age.

The heart was enlarged. Its weight was a little over fourteen ounces. The walls of the left ventricle were not thickened, not exceeding half an inch. The walls of the right ventricle were attenuated. The cavities were dilated. The external surface of the heart presented opaque patches, giving to it a mottled appearance. The greater portion of the walls of the right ventricle appeared to consist of fat, the muscular tissue being reduced to a thin layer, not more than a line in thickness. Examined with the microscope, by Dr. Grall, fat globules were found in great abundance; but he did not succeed in displaying the muscular fibres, the specimens becoming dried before the examination was made.

A rent was situated at the upper part of the right ventricle sufficiently large to admit readily the forefinger. A layer of fibres at the inner surface of the ventricle was ruptured, and detached over a space larger than the perforation through the ventricle. The rupture was on the anterior surface of the ventricle, near the pulmonic orifice.

Case 8. *Pericardial friction sound simulated by cardiac pleural friction-sound. Pleuritis. Pulmonary tuberculosis. Death. Autopsy.*

James Walsh, aged thirty-five, laborer, admitted January 12th, 1859. He stated that he had yellow fever in 1847, and a year ago acute rheumatism. With these exceptions, he had always been well, until three months ago, when he began to cough, and had continued to cough and expectorate moderately ever since; but he did not consider himself really ill until after an injury which he received on the chest by falling on the curbstone, eighteen days before his admission. Pain in the chest and difficulty of breathing followed this accident, and obliged him to keep the bed for two days. He was afterward up and about, but the pain in the chest continued; and being again obliged to take to the bed, he came to the hospital. On his admission he complained of pains on coughing, and taking a deep inspiration, referred to the præcordia, and the lower, posterior portion of the chest on the left side. The pulse was 132, regular, but small. Respirations 16.

Physical signs. Flatness on percussion at the base of the left side, extending, behind, upward an inch above the lower angle of the scapula. Some variation of the limit of the flatness on comparison in the sitting and semi-recumbent postures. The resonance in front, over the upper third of the chest, on the left side, notably greater than on the right side, and visculo-tympanitic in quality. Respiratory murmur relatively feeble at the upper portion of the chest on the left side. Absence of respiratory murmur on the left side below the line of flatness on percussion; vocal fremitus and resonance also wanting.

No apex-beat or impulse to be felt anywhere. A well-marked cardiac friction sound, most marked within and above the level of the nipple, was heard over a space three or four inches in diameter. It was not propagated beyond the heart, except for a short distance to the left of the nipple. The sound varied in intensity with different movements of the heart. It was sometimes heard with the systole and diastole, and sometimes with the systole only. It was somewhat rough. It was intensified by firm pressure with the stethoscope. The sound was heard when respiration was suspended. It was most marked at the end of an inspiration.

This friction-sound persisted for several days, and was listened to by a great number of persons, as an excellent specimen of a pericardial friction-sound.

Delirium tremens became developed. The patient was violently delirious, requiring to be removed from the ward. Death occurred on the ninth day after his admission.

On examination after death, the left pleural sac was found to contain a large quantity of turbid serum. The left lung was pressed upward over the heart, so as to abolish the superficial cardiac region. It presented a wrinkled appearance, and crepitated slightly on pressure. The pleural surfaces were united by tender adhesions. The lung extended downward, in front to the level of the nipple. The pericardial sac contained a moderate quantity of transparent serum. A single, small, flocculent portion of lymph only was observed at the bottom of the liquid. The pericardial surfaces were smooth and polished, presenting no trace of inflammation. The valves of the heart were perfectly normal.

The pleural surface over the entire left lung was opaque, rough, and presented a granular appearance, but no masses of lymph.

The lungs were tuberculous. At the summit of the right lung a cavity existed as large as a common walnut, surrounded by pulmonary tissue solidified by crude tubercles. The left lung contained, at the interior portion of the upper lobe, a tuberculous mass of the size of a common walnut, the central portion being semi-liquified.

Remarks. This case does not properly belong in the category of diseases of the heart, but the propriety of its introduction in this connection is sufficiently obvious. The cardiac friction-sound was considered as evidence of pericarditis coexisting with the pleuritis. In my clinical remarks at the bedside, the occurrence of a cardiac pleural friction-sound was stated; but the intensity, persistance, and situation of the sound, in this instance, led me to refer to the pericardial surfaces. The situation of the compressed lung, as determined after death, accounted for the production of the sound, which was produced either by attrition between the surfaces of the pericardium and pleura in apposition, or between the pleural surfaces over the heart.

Walshe gives, as the discriminating circumstances relating to a cardiac pleural friction sound, 1st—fixedness at one or more points; 2d—suspension of the sound by holding the breath at the end of a full inspiration; 3d—unsteadiness, irregularity, and occasional loss of the friction-sound. These three tests were not sufficiently employed; but the first was not available, since the sound was heard over the greater part of the præcordia; the second was probably not applicable in this instance, for the sound was most intense at the end of an inspiration; and the third, although true in this case, is certainly also true in certain cases of pericarditis. In a similar case, with the advantage of the experience derived from this instance, I am unable to see how the non-existence of pericarditis could be positively determined.

EDITORIAL AND MISCELLANEOUS.

The summer months have passed their slow lengths away, and though nearer draws on our human span, we can scarce regret the days gone by. Give us the future, with its hopes and its aspirations, even though the bitter and the sweets should still be mixed in the cup. It seems as if, for every day that we grow older, we are only approaching nearer the solutions of some of the great problems of human science, especially those which treat of health and disease. Maintaining that the profession of medicine is really the most exalted, as it is the most important to man, we hold that the editor is a high priest in the temple, who must always bear onward the torch, so as not only to illuminate the present, but even to point out the dim shadows of the future. It is, however, no easy task in this vast world of mind even to skim over the surface, and present to our readers the most salient points which rise on the surface, like waifs on the sea of time. Like the miner who delves for gold, and eagerly clutches at every shining particle, so do we often mistake the dross and grasp it, like pure gold, until some infallible test tells us of our delusion.

Thus it is with many of the systems in medicine, for a dogma that was infallible yesterday, was questioned to-day, will totter and fall to-morrow. But after all, are they not like the leaves of the forest, which fall in autumn, and leave the soil more fertile than ever? The time is far distant when we can expect certainty in medicine; and yet we look with anxiety at the clouds which rise in the distance. It seems as if, in this day of universal scepticism, the best established propositions in therapeutics, or in the specificity of disease, were destined to be abandoned. Now we hear that blood-letting, and its great antiphlogistic ally, mercury, have been attacked with mighty blows by Bennet of Edinburgh; anon we hear that the great syphiliograph, Ricord, the most accomplished surgeon of his day, and who has done so much to methodize the Protean forms of syphilis—he who advocated the Hunterian classification into primary, secondary and tertiary symptoms, assigning to each its character and effects, with logical accuracy and irresistible arguments—we hear, from the Gazette

Hebdomadaire, that the splendid and methodic fabric he had raised, as he thought upon observation, and laboriously ornamented with his vast stores of wit and eloquence, all of this is tottering to its base. Evidence upon evidence had been accumulated to show that secondary accidents are transmissible; that not only the chancre alone, but the humid papulæ and other accidents may communicate the disease. Besides these, the hydra of syphilization still lifts its monstrous head, a fit denizen of the prisons whose very air it infects. In physiology the science is really progressing so fast that a journal specially devoted to the subject is always filled with important matter. The great question of the origin of the sugar in the liver is yet mooted, and we find that the glycogenic substance appears to play an important part as a condition of the development of certain tissues in the fœtus, though its precise signification is not yet known. But amid all these changes, the editor, like a prudent mariner, must give warning in time, and prepare his passengers to pass in safety through the breakers ahead. We could not, therefore, like Harper, style ours the Easy Chair, for uneasy sits the one who fills it, if he tries to please every friend and patron who trusts to him for the tocsin of alarm or the joy-bells of triumph. But with all its cares and troubles, the life of the medical editor is not devoid of its pleasures; for, as each month comes around, and the journal goes off to friends far and near, he cannot but rejoice to hold converse with the learned and the wise through the land.

Still, editors, like other men, aye, and quicker than others, tire of ever driving the pen, of ever torturing the brain, and they, too, sometimes need relaxation from care and labor. Now, our readers, we doubt not, have early discovered the change in pilots; they knew that one, at least, had crossed the broad Atlantic, though his pen continued to adorn our pages. His colleague, also, had followed his example, and sought renewed health in a more bracing climate. Though in their absence our beacon shone less bright, still we hope it did not, like the jack-o-the-lantern, travel o'er fen and morass, but rather like the moonbeam's misty light, prove a safe though darksome friend. But our travelers are soon to be with us again, and in our next number will resume their charge. Now, then, the editor pro tem., in his turn, bids you farewell and God speed!

Changes in Medical Schools.—The vacancies in the New York Medical College have been filled by the transfer of Dr. Peaslee to the Chair of Obstetrics, and by the appointment of Doctor Austin Flint, Jr., to the Professorship of Physiology and Microscopical Anatomy. Professor Austin Flint, Jr., has already taken a high stand in the profession, as the editor of the New York Monthly Review and Buffalo Medical Journal. He filled last year, if we mistake not, the Professorship of Physiology and Microscopy in the Medical Department of the University of Buffalo. We rejoice to hear of his appointment to a wider field, though not to a more exalted position, and in our double capacity of confrère we cherfully congratulate him. A. P.

In the Medical College of Ohio, Dr. J. Wood has resigned his chair, and two new professorships have been instituted in its stead. That of Clinical Medicine has been filled by the appointment of Professor Graham, and Dr. B. F. Richardson fills that of Diseases of Women and Children.

Dr. James Bryan occupies the Chair of Anatomy, and Dr. Meier that of Surgical Anatomy and General Pathology.

In the Shelby Medical College, Dr. Henry Erni succeeds Dr. Curry in the Chair of Chemistry.

Dr. John E. Crowe has been appointed Demonstrator of Anatomy in the Medical Department of the University of Louisville; and Dr. Demmé fills the same post in the Pensylvania Medical College.

The Faculty of Medicine of Paris recently presented the following candidates for the Chairs of Physiology and Pharmacy. For the former, Drs. Longet and Béclard, and for the latter, MM. Régnault, Leconte, and Orfila.

The successful candidates were MM. Longet and Régnault.

New Works.—Messrs. Blanchard & Lea have in the press, and will issue early in the autumn, Professor Austin Flint's treatise on the Diseases of the Heart; Professor Hamilton's work on Fractures; and Professor Stillé's treatise on Materia Medica and Therapeutics—the latter in two large octavo volumes. Dr. Da Costa's work on Diagnosis is in the press of Messrs. J. B. Lippincott & Co., and will appear in the course of the winter.

BOOKS AND PAMPHLETS RECEIVED.

The Action of Medicines in the System, or the Mode in which Therapeutic Agents Introduced into the Stomach Produce their Peculiar Effects on the Animal Economy. By Frederick William Headland, M. D., B. A. Third edition, revised and enlarged. Philadelphia: Lindsay & Blakiston.

We have before us a new edition of this valuable work, and no better proof can be urged of its excellence than this fact, that since the month of April, 1855, it has gone through three editons. The truth is, that in a condensed and very readable form, we have here the whole rationale of therapeutics as the science now stands. Next to diagnosis, a correct knowledge of the uses of medicine is of paramount importance to the physician; and we doubt not that the author's views on the action of medicines will prove useful and interesting to many. It is certianly the best manual we posses on the subject. A. P.

The Physician's Visiting List, Diary and Book of Engagements for 1860. Philadelphia: Lindsay & Blakiston.

Some Account of a Secret Society in New York, entitled the Kappa-Lambda, in a Letter to Alexander R. Stevens, M. D., L. L. B. By a Retired Physician. pp. 37.

The Pathology and Treatment of some of the Diseases Incident to Women. By CHARLES F. TAYLOR, A. M., M. D. pp. 16.

A New Journal of Dental Science.—We have received the first and second numbers of "*The Dental Cosmos, a Monthly Record of Dental Science.*" Its pages are filled with valuable and interesting matter, and we cheerfully recommend it to the Profession whose interests it advocates. We shall exchange with pleasure, and wish it long life and prosperity. A. P.

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EXCERPTA.

CLINICAL LECTURE ON TETANUS.—Delivered at University College Hospital.—*By John Erichsen, Esq., Surgeon to the Hospital.*—GENTLEMEN: The case to which I wish to direct your attention to-day, and to which I propose to append some remarks on the subject of tetanus, is that of a boy named B——, aged thirteen, who was admitted into this hospital on the 12th of December last, on account of sacro-iliac disease. I shall defer any observations which I may have to make on the affection for which he came to us until a future day, when this case will be taken in conjunction with other cases of sacro-iliac disease. But this case is of more special interest, inasmuch as, while here, the boy was seized with symptoms of tatanus, and eventually died of that affection.

The following are some of the leading facts of the case: The boy, who appeared healthy and well nourished, and did not seem to labor under any congenital or constitutional predisposition to disease, became affected six weeks before admission, with symptoms of sacro-iliac disease. On admission, nothing unusual presented itself in the symptoms, and our diagnosis was made at once. In the ordinary course of treatment, an issue was made, by means of potassa fusa, over the back of the articulation, in the usual way. after the separation of the slough (about the fifth or sixth day), a couple of issue-beads were applied to the ulcerated surface, in order to keep it open and cause a discharge. So far, there was nothing to lead us to suspect the coming evil. On December 24th, the report states that the patient had some stiffness about the jaws, and inability to separate them; there was also some commencing tension about the sterno-mastoid, and some spasmodic action of the muscles of the neck; in fact, on the 24th he was seized with symptoms of the invasion of tetanus. These symptoms increased, the muscles of the trunk and extremities became convulsed, symptoms of suffocation appeared, and he died on the morning of the 28th, in a fit of tetanic spasm, notwithstanding the treatment adopted.

Now, such an occurrence as this is, I need scarcely say, most appalling. A patient suffering merely from a local affection, with constitution unaffected, has an issue inserted in the ordinary course of treatment, and in a few days gets, as the result of that issue (and unquestionably it is the result of the issue), a disease of which he speedily dies. Such an occurrence would indeed be as remarkable as it really is mysterious, were it not that similar ones are by no means infrequent. In fact, surgeons have learned to look upon tetanus as one of those affections which necessarily give rise to an appreciable per centage of deaths in patients suffering from injuries or operations.

With regard to the disease which destroyed the life of this patient, viz: tetanus, I shall say nothing concerning the symptoms, because they exhibited nothing peculiar; but I intend to pass in review a few points connected with its cause, its nature, and its treatment.

1. *Cause.*—Individuals may, doubtless, be seized with tetanus, although not having any breach of surface; but, in the vast majority of cases, the affection comes on as the result of wounds of some description, and these, very generally, wounds of a trivial character. Thus, it does not so commonly follow compound fractures of the thigh or leg, as it does minor injuries of the extremities; nor is it so frequent after amputations, resection of joints, or the removal of large tumors, as it is after many minor operations; so that it may be looked upon as most commonly resulting from minor surgical injuries and operations. On looking over a list of the cases which have been under my care in this hospital, I find that, in not one has tetanus come on as the result of the major operations, or more severe accidents, but such injuries as punctures, and compound fracture of the fingers or foot, lacerated wound over the wrist, or a burn on the trunk, are amongst the injuries giving rise to it. So far as operations are concerned, although it may certainly occur after the major operations, it has generally followed such operations as those for varicocele, fistula in ano, ligature of piles, etc., all of which are quite as liable, if not

more so, to be followed by tetanus, as the severest operations in surgery.

With regard to the general causes of tetanus, it is no doubt, predisposed to greatly by the season of the year, and by epidemic constitution. At those periods and seasons when there are great alterations of temperature—when hot days are succeeded by cold nights—tetanus becomes frequent. In hospital practice there may be no case for months, then several may occur in rapid succession. The week before this boy died, I saw not a quarter of a mile from this hospital, another case which also ended fatally. The circumstances in which the patient is placed, exercise great influence; it may occur in the old as in the young, in the weakly as well as in the robust. So far as my experience goes, it is more frequent among young adults and elderly people than at the middle period of life; more frequent amongst the weakly than the robust. Indeed, when a person apparently in robust health is attacked, it will generally be found that, previously to the supervention of tetanus, he has been subjected to some depressing influence—has been out of health in some way, and has lost tone and vigor.

One of the most important causes of tetanus, especially in military surgery, and, probably, a not unfrequent one in civil practice, is exposure to alterations of temperature and currents of cold air. Hennen states that this was the most frequent cause of tetanus amongst the wounded in the Peninsular War. Larrey observed the same in Napoleon's campaigns. After the battle of Bautzen, a large number of wounded were left upon the field, exposed to the cold night air. Next day a considerable proportion were found to be affected with tetanus. After the battle of Dresden, the same thing was observed; while after Moskowa, where the night was warm, although the number of wounded was immense, the proportion of tetanic cases was very small. In our Indian campaigns, at Chillianwallah, and at Ferozepore, the wounded, after severe exertion under a burning sun, were left exposed during an exceedingly cold night, and according to Dr. McLeod, in a very interesting work called *Notes of the Surgery of the Crimean War,* which I can strongly recommend for your perusal, the result was a large number of cases of tetanus. M. Baudens, again, the chief surgeon to the French army in Algeria, noticed, that out of a small number of wounded placed in a corridor through which played a draught of cold air, a large proportion were seized with tetanus in a single night. All this points to the importance of our not allowing wounded or operated patients to be exposed to draughts of cold air.

The number of cases of tetanus in proportion to the number of wounded varies in civil and military practice, and different climates, etc. Mr. Ruterford Alcock, who accompanied General Evans's expedition into Spain about twenty-five years ago, gives the proportion of tetanus to wounded as 1 to 79. Sir J. M'Grigor in the Peninsular war, found it to be 1 to 200; and in the Schleswig-Holstein campaign it was, according to Stromeyer, 1 to 350. In the Crimea, so far as we can judge by official returns, the proportion of tetanic cases was very small. These discrepancies are no doubt due to the different conditions under which the soldiers were placed. Thus, in the Crimea, being engaged principally in seige operations, the wounded were not left exposed during the night, but were removed at once, and put under cover; and in the Schleswig-Holstein war, each army being close to its base of operations, could take adequate care of its wounded, who, therefore, were not exposed to those conditions which military surgeons recognize as the most potent causes of tetanus.

As I have already stated, the proportionate number of deaths from tetanus varies widely in different climates. At Bombay, according to Mr. Poland (who in a very able paper has exhausted the statistics of tetanus), it is 2.5 per cent. of all deaths; in London, according to the Registrar-General's returns, 00.25 per cent. This preponderance in Bombay is no doubt owing to the heat of the climate; but it must be observed that the proportion is not nearly so great amongst the Europeans there as amongst the natives.

The situation of wounds—has this any influence in determining the occurrence of tetanus? It is a prevalent opinion, both amongst non-professional and professional people, that wounds of the hand, particularly those of the thumb, and above all, those of the web between the thumb and index finger, are more prone to be followed by tetanus than wounds elsewhere. Whether this be true or not, admits, I think, of great question. That the hands are much more liable to injury, and are much more frequently wounded, than other parts of the body is evident, and the absolute number of cases following such injuries would therefore be expected to be greater; but whether the *relative* number is greater is questionable. On looking over my notes of eighteen cases of tetanus which have come under my observation, and of which I have kept a record, I find that in five of the eighteen the hand was the seat of injury—that is, a little more than one-fourth; but this, I should say, is about the proportion which injuries of the hand, including those of the most trivial character, bear to injuries of all other parts of the body.

2. *Nature.*—The exact nature of tetanus is an unsolved question. Nothing appears more mysterious than an affection such as this, which often seizes an otherwise apparently healthy person suffering from some slight injury, with the

more violent convulsive spasms terminating in death in three or four days, or even in less time than that. We have to inquire into the condition of the nervous system, on which such a disease as this is dependent. On examining the brain and spinal cord, we find nothing special to the affection—no lesion which would enable the most experienced pathologist to say that the person had died of tetanus. It is true that we often find some congestion, or softening, as in this case, just above the cauda equina, or a large amount of serosity in the ventricles or subarachnoid space, which may be turbid or bloody; but all such appearances are common to other diseases besides tetanus, and none of them will enable us to assert the existence of tetanus during life. Look at the brain and spinal cord before us. They are to all appearance perfectly healthy, with the exception of some slight congestion, and a small softened patch in the cord, just above the cauda equina. They present no special appearance, no sign by which the acutest pathologist could, by any examination, anatomical or microscopical, say that they came from a tetanic patient. Finding no structural lesion post mortem, medical men have been in the habit of calling this, in common with other diseases of which the exact cause is alike unknown, a "functional disease." But the term "functional disease" is only used as a cloak to ignorance; there is no such thing as a functional disease, and the person who uses the expression merely means that he does not know the organic lesion on which the disorder depends. Every function is the result of the action of an organ; every derangement of a function is the result of the derangement of the corresponding organ; and no function can be deranged without previous or co-existing derangement of the organ whose action constitutes the function. As pathology advances, the class of "functional disorders" becomes less and less. We do not now hear of functional disorders of the heart, lungs or joints, because the pathological anatomy of those parts being well understood, it is possible to refer their diseases to the real cause. As the physiology and pathology of the nervous system are not yet well ascertained, notwithstanding the labors of such men as Marshall Hall and Brown Séquard, many affections of that system are at present inexplicable, and "functional" nervous disorders are very common. No surgeon speaks of "functional" coma, because the particular cause (compression) of the coma is well known and easily recognized; but one still hears of "functional" amaurosis, and tetanus is commonly spoken of as a functional disease. Amaurosis, when I was a student, was looked upon almost solely as a "functional" disorder; but the introduction of the opthalmoscope has shown that in most cases where functional disease was formerly said to exist, there is, in reality, some structural change in the nervous apparatus of the eyeball appreciable by the naked eye. So it will be with other affections as pathology advances, and disease hitherto vaguely and loosely spoken of as functional will be found to depend on organic changes as appreciable by the senses as are the changes in an amaurotic retina and choroid.

Yet there is in tramautic tetanus, I believe, always a certain condition of the nervous system to be met with, if carefully looked for, namely, an unhealty state of the nervous branch, or twig, running from the wound. This twig will be found implicated in some way—congested, inflamed, infiltrated; its neurilemma thickened, softened and discolored, often for a considerable distance from the wound. I have never failed to find this when it has been carefully looked for. In the present instance, a cutaneous branch was found lying bare and inflamed in the bottom of the issue-wound. In many other cases I have seen the same. Thus, in the case of a girl who had tetanus, consequent on a small punctured wound on the inner side of the thigh near the knee, a branch of the internal cutaneous nerve was found in this condition. I have seen injury to the internal plantar nerve, by treading on a rusty nail, followed by tetanus, and the nerve after death found irritated and inflamed. A dorsal cutaneous nerve was implicated in a case of tetanus following a slight burn on the back, and the external cutaneous branches of the musculo-spiral were affected as high as the bend of the elbow, in a patient who died from tetanus following injury to the thumb. A similar condition of these nerves was observed in a man with lacerated wound over the wrist. These and other similar cases which have fallen under my observation, clearly demonstrate, that although we may fail in discovering any special lesion in the central nervous system, yet that in most, and, so far as my experience goes, in all cases in which the examination is carefully conducted, it will be found that a nervous twig connected with the wound is irritated and inflamed; and this seems to be the starting point for this so-called functional disease. An organic lesion, not central, but peripheral, still exists, as essential to the production of the affection.

3. *Treatment.*—With regard to the treatment, I need say very little, and that little is in no way satisfactory. The case we are now considering followed the usual course of such attacks, beginning with stiffness of the muscles supplied by the portio dura, violent general spasms coming on in the course of twenty-four hours, and death occurring between the fourth and fifth day. More than half the cases of tetanus die before or on the fifth day from the commence-

ment of the spasms. If the patient survive that time, the symptoms tend to become milder, the disease may wear itself out, and recovery follow. I have seen death occur in less than thirty hours, and as late as the twentieth day; so that the fact of the attack being very chronic is no proof of its innocency. Acuteness of attack, however, is a sure sign of great danger. So, also, the sooner the symptoms come on after the infliction of an injury, the greater is the danger, and the more speedy the fatal issue.

In considering the treatment of tetanus, we must divide it into that of the acute or active, and of the chronic or sub-acute form. In the treatment of *acute* tetanus, I believe that no remedy known exercises the slightest *curative* influence. To drug a person affected with active acute tetanus, is, in my opinion, utterly useless. I have never seen nor heard of a case cured by the routine treatment, the sooner we abandon such I think the better. Calomel and opium in large doses, the vegetable sedatives, belladonna, conium, henbane, opium or camphor, largely administered, are all unavailing (when the disease is acute) in retarding, mitigating, snspending, or arresting its progress. If we are ever to cure acute tetanus, we must give up this line of treatment, which we have been taught by experience to be useless, and endeavor to discover some new principle to guide us in the management of this affection. Yet acute tetanus may be cured, though not, I believe, by medicine; and much may be done to mitigate suffering. The first thing to be done is to divide the nerve leading from the wound, where it can be found and isolated. The wiser plan would be to divide the trunk of the nerve, high up in the limb, so as to get beyond the sphere of the local irritation, which appears to be the chief organic lesion discoverable in these cases. Patients have been cured by this means. Mr. Murray (the surgeon who tied the abdominal aorta) relates the case of a midshipman, who received a wound in the foot from a rusty nail; tetanus came on; Mr. Murray divided the posterior tibial nerve, and the patient recovered. Such cases give hope of being able to save others, and this operation should therefore be done at once, where practicable. It is not, however, by any means invariably successful. Last session I divided, without success, however, the branches of the external cutaneous for tetanus, following a wound of the back of the hand.

In the general management of the patient, we must remember that we have an exhausting disease to deal with; The patient sweats profusely during the intervals of the spasms, and will soon sink if not supported. All external causes of excitement should be removed from about the patient; he should be kept perfectly quiet, his bed surrounded with screens or muslin curtains. In addition to these means, the occasional inhalation of chloroform will alleviate, though it will not cure acute tetanus.

In *sub-acute* and *chronic* tetanus, the case is different. If the patient survive the fifth day, and the affection assume a chronic or sub-acute character, we may entertain some hope of his recovery. He should be kept quiet—his strength supported. Terebinthinate enemata, calomel with opium, belladonna or conium, are the remedies to be employed. Many patients have got well under, and seemed to be cured by this plan of treatment. Cannabis indica, ether and chloroform, have also been recommended, but are not alone to be trusted to. At all events, calomel and opium, and, if you like, belladonna also, may be given with advantage. You may also feel disposed to try the effect of the sedative alkaloids. I am not aware of any cure having resulted from their use, but atropine, applied liberally, has been beneficial, by mitigating the pain which the patient suffers. Such alkaloids, or the corresponding vegetable extracts, may therefore be applied with benefit.

To sum up: it appears that the best prospect of a cure is to be found in the division of the nerve leading from the seat of injury, whenever this is practicable; in the employment of proper hygienic and dietetic means; in the removal of all sources of external excitement and irritation, local and constitutional; and in the administration of moderate doses of calomel and opium, with turpentine enemata. Such measures as these, I say, appear to be more rational, and to hold out a better chance for the patient, than the empirical administration of specific sedatives, which experience has repeatedly proved to be unavailing in curing the disease, and often even in mitigating its sufferings.—*Lancet.*

On the Employment of Iodide of Sodium.—*By Alexander Ure, Esq.*, F. R. C. S., Surgeon to St. Mary's Hospital, and Lecturer on Clinical Surgery.—I submit to the profession the following observations respecting medicines, which will I trust be found useful in practice. Iodide of sodium is met with in the ashes of the sea-weed and of various plants which grow on the sea-shore. To this source may be reasonably ascribed the belief entertained in the healing virtues of sea-weed by inhabitants of the coast in different parts of the globe. Professor Laycock, in an ingenious address which he delivered at the pharmaceutical meeting in Edinburgh last November, and which is published in the "Pharmaceutical Journal" of the month following, states that "in the pampas of South America, where goitre is prevalent, the remedy, a so-called goitre-stick, is nothing more than the thick stem of a sea-weed." Mr. Cooper, in his "Surgical

Dictionary," recommends for some scrofulous affections the use of poultices of sea-weed.

Iodide of sodium, as a therapeutic agent, is and ought to be more active than iodide of potassium, since it is richer in iodine. According to Gmelin, iodide of sodium contains 84·45 parts of iodide in the hundred, while iodine of potassium contains 74·27, the portion of sodium, though small, being still sufficient to cover the irritative quality of its associate.

As far as my experience goes, iodide of sodium is a blander salt, more assimilable, and better borne by the stomach, than iodide of potassium. It is, moreover, much less prone to produce symptoms of iodic disturbance. Patients under my care have taken it steadily for weeks together, without suffering the slightest inconvenience, and with uniform advantage as regarded the morbid condition. On no occasion, save one, has there been any complaint made of this medicine producing sense of weight or uneasiness referred to the stomach, nausea, impaired appetite and digestion, headache, running from the eyes and nostrils, general nervous depression—symptoms which at times supervene during the administration of iodide of potassium, even in moderate doses. The instance in question was that of a puny, scrofulous boy, with disease in both knee-joints.

As a general rule, the preparations of soda are milder in their operation on the system than those of potash. If, moreover, the important view, first announced by M. Dumas in the 92d volume of the "Annales de Chimie," be accepted, that there are certain salts which leave the blood the faculty of becoming arterialized, while others deprive it of this property, and that the salts having soda for their base are more proper to maintain this condition of integrity than those of potash or ammonia, it may be fairly assumed that the former are likely to exercise a more favorable remedial influence than the latter, especially if exhibited continuously for a length of time. Soda, variously combined, is diffused extensively throughout the organism; fully five-sixths of the saline constituents of healthy blood consists of salts of this base.

Iodide of sodium may be prescribed in all cases in which the employment of iodide of potassium is indicated, as antidotal to various constitutional symptoms of syphilis, chiefly of the so-called tertiary group, and where mercury has been properly used beforehand; in certain forms of rheumatism; in chronic affections of the joints and bones of a scrofulous character, particularly where a stealthy inflammatory process had determined copious fibro-plastic depositions of hypertrophy. If judiciously administered, it may be given in progressively increasing doses, where it is desirable to produce a decided alterative effect on the system. M. Gamberini has furnished a brief notice respecting its use in the volume Schmidt's "Jahrbücher" for 1858. Reference is made to 116 cases of constitutional syphilis in which it had been exhibited, and where it was found to have acted more rapidly than iodide of potassium, and often proved efficacious where the latter drug had been of little or no avail. It is there recommended to be given as follows: One scruple is to be dissolved in three ounces of distilled water, and this is to be swallowed in divided doses in the course of the day. After the lapse of two or three days, the above amount is to be augmented by the addition of six grains; and so on until eventually the patient comes to take two drachms, or even more, of the salt daily; the time for taking each dose being an hour before meals.

Hitherto I have usually prescribed the iodide of sodium to the extent of five or six grains twice or thrice daily, dissolved in four ounces of compound decoction of sarsaparilla, which forms a convenient vehicle; occasionally, in pure water, with the addition of five grains of bicarbonate of soda to each dose; this serves to counteract acescency, and the consequent liberation of hydriodic acid in the stomach, which is sure to cause headache. In scrofulous complaints, I have given it combined with cod liver oil, and with manifest benefit. A remarkable and unexpected effect was observed in one instance under this treatment for diseased bone, where a marked improvement of sight ensued from diminution of a nebulous condition of the cornea. In constitutional syphilis, I have found it advantageous occasionally to conjoin the use of the iodide with that of bichloride of mercury, should mercury have been previously withheld, or imperfectly introduced into the patient's system.

As a general rule, the iodide ought to be administered in plenty of liquid, and not on an empty stomach, as suggested by the above writer. It is readily soluble in water, has a cooling saline taste, certainly preferable to that of potassium compound, and by no means equally persistent in the throat.

Subjoined are the notes of one of the several cases in which this medicine has been employed by me. Reports of others, still under treatment, will be duly communicated:

G. W——, aged twenty-eight, a footman, was admitted into St. Mary's Hospital, under my care, on the 15th November, 1856. He was a wan, emaciated, cachectic looking man. He complained of pain, referred to the large joints, and of aching in the back and loins. He was disfigured by patches of rupia, scattered over different parts of the surface; thus on the right side of the nose, at the junction of the nasal bone with the cartilage, was a dark, oval scab, overlying a sore the size of a shilling, and which seemed, as it were, eating its way into the nostrils; on the tragus of the right ear was a similar scab, as also over the right eyebrow; on the scalp there were several scabs of the same character; on the right arm was a prominent, hardened scab, and another over the left wrist; behind the inner ankle of the left foot was a round, excavated sore, of a dusky red hue, the sequel or inflammation of the corial tissue. Each scab had been preceded by the formation of a small vesicle of a punctuate character. This eruption was of a month's standing. He suffered besides from an affection of the throat, of three weeks' duration, and which caused great distress in swallowing. On examination it was found that there was a deep oval ulcer in the left tonsil, covered with greyish-yellow film, and a similar sore in the mucous membrane of the back of the pharynx. He had enjoyed good health until five weeks preceding his admission, when he had an attack of rheumatism, and for which he was successfully treated in this hospital. He denied ever having had any venereal malady; had been married fourteen months, and was the father of a healthy child.

Nov. 18th.—After the scabs had been softened and partially detached by the application of wet lint, I directed the different spots to be touched with nitric acid; the sores in the throat to be swabbed daily with dilute hydrochloric acid, and the patient to take five grains of iodide of sodium in four ounces of compound decoction of sarsaparilla, thrice every day. Ordinary diet.

25th.—Was improved in all respects, more particularly as regarded appetite.

29th.—General amendment; sores in the throat were much reduced in size.

Dec. 3d.—Nitric acid was applied to the crusts on the scalp.

6th.—The ulcer of the tonsil was healed, and that at the back of the pharynx nearly so.

8th.—The sore on the nose was making favorable progress under the use of water dressing; the rupia scabs were all disappearing, and there was manifest improvement of the general health. The patient was ordered to have a warm bath twice a week.

15th.—The throat was quite well; the sore on the nose and that near the ankle were completely cicatrized; the rupia was extinct. The patient had evidently gained in flesh and strength; his cheeks were plump, his complexion was florid, and he was perfectly free from pain in the back, loins or joints. He was discharged cured, on the 24th of December, 1858, after a sojourn of thirty-nine days in the hospital.

Nothing could be more satisfactory than the result of treatment in this instance, which was simply that of uninterrupted progress to recovery. The case was one of the eroding variety of rupia, termed by some writers *rupia escharotica*, and which is occasionally witnessed in the persons of those who have been affected with the constitutional symptoms of syphilis. The man, at the time of his admission, was in a deplorable state of health; his throat was the seat of foul ulcers, one side of his nose was on the verge of mutilation, his body was racked with pain, his countenance marred by an unsightly eruption. After the lapse of about five weeks, he had regained his wonted health, and returned home without any appreciable trace of the disfiguring malady for which he had sought relief within the walls of an hospital.—*London Lancet.*

Female Doctors.—In one of the last numbers of the Edinburgh Review, the author of an article on the subject of Female Industry, after recommending the numerous dry goods clerks, with broad shoulders and brawny arms to depart for India, adding that the female sex would rush in to fill up the vacuum, has also taken up the cudgels in favor of *Female Doctors.* The reviewer has been most ably answered in the July number of the Medical Times and Gazette; and we reproduce the concluding part of that article, with which we entirely concur. Let us add, moreover, that in Paris, where there is a special course of lectures for midwives, and an immense lying-in hospital, the Maternité, where they alone are allowed to enter; there, we say, the *ignorance* of midwives is still a bye-word, and we have heard Dr. Pagot, a most accomplished and lucid lecturer on obstetrics, avow that he was always at a loss to make them understand the simplest propositions in the science. We know that the work of M'me Lachappelle on obstetrics will ever remain a monument of clinical observation, but one swallow does not make a summer, and because the author of "Monte Christo" has some African tinge, it does not follow that every mulatto must be an Alexander Dumas. [Ed.

"But we are not going to pursue the Edinburgh Review writer through all his long article on Female Industry. One page of that article, however, tells of 'female doctors'—and it is so very weak a little history, that, taking it as a specimen of the rest, we were not inclined to prosecute our inquiries further. On this point we are certainly capable of forming an opinion, and our opinion is, that the writer demonstrates his incapacity of dealing with the subject he treats about. He clearly cannot either know what the business of a doctor is, or what the female moral and physical is fitted for and capable of, or he never would have backed up the glaring absurdity of the manufacturing or establishing of that novel hybridity—female doctorates. Do not the very words, Mrs. Blackwell, Doctor of Medicine, at once raise up before us the image of one of those incongruous combinations which so distressed the clear mind of our friend Flaccus—the serpent of Æsculapius appended to the female face divine?

> 'Desinit in piscem, mulier formosa supernè.'

So does not think our Edinburgh Reviewer. He evidently would go in for Bloomerism at a pinch. But let us now see his arguments, and answer them; for it is time that this piece of imported American humbuggery should be exposed.

"And first let us express a natural surprise. Why is Dr. Elizabeth Blackwell here amongst us, lecturing on the rights of women to female audiences in England? She has long studied in this, as in her own country; she has filled her mind with good store of medical knowledge, picked up in the most celebrated hospitals; she has become a highly educated practitioner of medicine, as must be supposed from the programme. Why then, we ask, is she not, now at this moment, distributing the benefits of all these high acquirements to her go-ahead Yankee female admirers? This is no impertinent question, and we may, not unfairly, suggest an answer to it. Our Reviewer tells us that some of the medical colleges of America now admit female students and make female doctors; and that what has been done there 'will soon be done here.' This is granted. But he does not tell us where the degree has been granted, and the brass plate stuck upon the door, whether or not *the business pays*—rather important part of the question. He omits to tell us whether the Yankee population is as advanced in high discernment as the universities which make these doctors in petticoats; whether, in fact, our lady cousins beyond the Atlantic really make use of this great opportunity; whether 'the moral and emotional considerations involved in this matter' have so taken hold of their minds as to lead them, in their hours of sickness, to rush eagerly and with feelings of thankfulness and gratitude into the arms of a physician of *the Sex*. In a word, the Reviewer does not tell us, as he ought to have done, whether the thing really does go down in America. Now, arguing *à priori* from the nature of the case itself, from the kind of duties involved in the *business* of a doctor, and the constitution of the female mind and body, and also from the fact of Mrs. Dr. Blackwell's presence amongst *us*, we venture to suggest that this scheme is a failure in America. Sam Slick has taught us how 'a Yankee blade is fixed on a Halifax handle;' and we have had many lessons of late which ought to teach us some little caution in the accepting of American notions and wares. Puccoon has done miracles in America, *argal* it will do miracles here, was Dr. Fell's argument; and this is just the Reviewer's style of argument—female doctoring is wonderfully good in Yankeeland, therefore it shall flourish in England. Every one remembers the 'rise' taken out of us by Dr. Fell, and the laugh it gave our cousins to see us swallow their cast-off articles. Therefore, let us be wise, and rather believe, from the presence of Dr. Fell and Dr. E. Blackwell here among us, that a belief in the principles which they proclaim to suffering humanity does not exist in the country which produces puccoon and female physicians.

"The Reviewer says female doctors don't go ahead here because of the 'proverbial jealousy of the medical profession;' and, if haply his eye may meet the lines we write, he will probably put us down among the catalogue of jealous ones. But he is wrong, as well as ignorant of the facts on this point. We will tell him, as proof contradictory of his assertion, that Mrs. Dr. Blackwell received attention of the warmest kind from physicians both in Edinburgh and London. We ourselves have seen her walking a London hospital ward, just like any other professor of the art of medicine, and receiving attention and consideration right and left. If she and her Reviewer, in behalf of the female sex, have selected a business inappropriate for female hands and wit, and if the public think so too, and won't employ female doctors, the Reviewer should abuse the ignorance of the public, and not take up that used up weapon, the accusing of the medical profession of jealousy, etc. Such a journal should be above claptraps so stale and contrary to fact.

"The truth is, that when people talk in this way about the benefits of female doctors in a community, they confuse two offices together—the nursing and the doctoring; and they conclude that because a woman makes the best of nurses she must of necessity be a good doctor. Now it has often struck us as strange, that men who thus recommend women for the offices of doctors should stop there. Why do they not claim for women admission into all the honors and duties of the other professions—law and divinity? We ask this in all seriousness; and have no hesitation in asserting that the special functions to be discharged by the representatives of the legal and preaching professions would come much more in unison with the 'cosmogony' of woman than the functions of physic. We have the proofs on record. Our great Artist, who, we are told, never wronged Nature, has shown us what the wit of woman can do; how well she can wag her tongue, garbed in the toga of a lawyer. Portia, the doctor of law (with the little Nerissa, the lawyer's clerk), was a 'Daniel come to judgment,' and saved the merchant's life. When all the learned wigs of Venice had in vain essayed to strain the law to cheat the Jew of his vengeance, a woman's wit prevailed. Why, then, may a woman not as well expound the law as practice physic? That she can preach, and with a telling emphasis, the high things of divinity, we need scarcely say; history has its complement of female apostles; and in the last best novel of the day—in 'Adam Bede'—a charming little converter of souls is the *primum mobile*, the heroine of the tale. How a woman can preach may there be learnt.

"In these professions of law and divinity there is really nothing, comparatively speaking, which need revolt the peculiar sensibilities of the sex; but in the practice of medicine there is something at every turn of it which is repugnant to the feelings and natural mode of actions of women. We do not, however, wish to argue, that because one woman has been a conspicuous warrior, like Joan of Arc, that therefore all women need go to the wars; or, that because there has been a Madame Dacier, all women should become Grecians; or that every female intellect should be stretching up to the stars and studying parallaxes, because Mrs. Somerville was our countrywoman. Neither need we desire to see women become special pleaders, because of their recognised volubility of speech, or because Portia cut out all the Venetian benchers.* That women can preach is certain; and certain also that St. Paul had to put them down as preachers even in his time.

"Well, then, as one swallow does not make a summer, why should the existence of Mrs. Dr. Blackwell prove the propriety of such a thing as a sect of feminine doctors?

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* The reader of Shakespeare will tell us that Portia was put up to the clever point by Dr. Bellario, and so, after all, the wit of outwitting the Jew's counsel was the wit of a man.

> 'Why are our bodies soft, and weak, and smooth,
> Unapt to toil and trouble in the world;
> But that our soft conditions and our hearts
> Should well agree with our external parts?'
>
> *Taming of the Shrew.*

"A much more sensible and correct estimate of the value of Mrs. Blackwell as a doctor and as an author may be found in the Saturday Review of May 28.

"Telling of Mrs. Dr. Blackwell's lectures, the witty satirist writes:

'We do not mean to say that nonsense even as great as this is not talked in England. . . . But an old country like England had the great advantage that such theorists are much more quickly set down for what they are worth. A lady-doctor who invited an audience of London ladies to make their daughters ride because the stars move in space, and because the Spartan women made the Athenians clever, would at once be treated with proper contempt. It is evident that if women are to make medicine a profession in England, they must do so in a totally different way from that which appears to be fashionable in America. They must be much more modest. We hope they will not lecture at all; and if they do, we hope they will not publish their lectures. They must also entirely avoid the twaddle of sham science; their peculiar office is not to talk about laws of exercise and use, but to win the confidence of females. We are not at all sanguine that women will ever make good doctors—we fear they would want nerve and the gift of silence. But they are entitled to ask that they should be allowed to try the experiment; and of the conditions under which alone the experiment can be tried successfully, they may learn a great deal by noticing the follies and extravagances of Dr. Elizabeth Blackwell.'

"We recommend these sensible remarks to the consideration of all admirers of feminine doctors, and especially of the Edinburgh Reviewer, who writes thus: 'Mrs. E. Blackwell, whose excellent work on the Laws of Health is one of the best which heads this article, led the way; and by the influence of her high character, attainments and success, she has conquered prejudice, and established the enterprise.' We shall see."

WHO DISCOVERED ANÆSTHESIA?—Nineteen years ago this summer, Dr. L. P. Brockett, a physician now, but then a student in Hartford, Connecticut, having recently had a molar tooth extracted which gave him great pain, was talking with the dentist on various subjects, when the conversation turned on the intoxicating influences of nitrous oxide gas. The dentist remarked, "*that he believed that a man might be made so drunk by this gas, or some similar agent, that dental or other operations might be performed upon him without any sensation of pain on the part of the patient.*" This conversation occurred in August 1840, and the man who uttered the startling and entirely novel proposition, was Horace Wells.

Four years passed by, and in the same city a traveling lecturer (Colton by name), administered to several persons the "laughing gas," amongst others, to a certain dentist. One of the party while under its influence, received a severe hurt, but did not give any evidences of pain, when the Dentist remarked to his neighbor (Mr. David Clarke), that he believed "*that a man, by taking that gas, could have a tooth extracted or a limb amputated, and not feel the pain.*"

This was on the 10th of September, 1844; and the great idea was again distinctly stated by the same Horace Wells.

On the morning of the 11th of September (the day after his lecture), Mr. Colton was requested by a gentleman to go with him to a dentist of Hartford, Dr. J. M. Riggs, and carry some "nitrous oxide." This person sat down in the operating chair, took the bag of gas, and inhaled it until he became insensible, and Dr. Riggs extracted one of his largest teeth. On coming to his senses, he cried out "*it did not hurt me more than the prick of a pin; it is the greatest discovery ever made.*" On that day the great idea became an embodied fact, and the discoverer proved in his own person the truth of his theory, for the man was Horace Wells.

From that time his restless, excitable spirit knew no peace. Day and night he talked of it, experimented with it, and studied its effects and modes of preparation. In a few months the truth was verified by many successful experiments. Doctors and professors, bishops, members of congress and many citizens of Hartford and vicinity united with one accord to declare, from personal experience, their perfect faith in the new discovery. Not only in tooth drawing, but in large surgical operations was the experiment tested. The thigh was amputated, tumors removed, cancers dissected out of the human body without pain; and for *twenty-two months* no other man opened his mouth, made an experiment or published a fact with regard to the great discovery about to bestow its priceless blessing on suffering humanity, save the one to whom we owe it—Horace Wells.

This ardent, zealous seeker after truth, often injudicious and extravagant, but ever frank and guileless, had a quondam student (now friend), who lived in Boston. His name was W. T. G. Morton. To him he applies for assistance, so that his discovery may be brought before the notice of the great men of the metropolis. Morton gave him the opportunity of using the nitrous oxide in the presence of the medical class of Harvard university. The tooth was extracted but the patient screamed; and although he afterwards declared that he did not feel the pain, the *students hissed* the trembling adventurer (the unknown dentist) from the hall—and back to his home, heart broken, friendless, but not despairing, came Horace Wells.

The tale is almost told. Morton sees *his* chance. Wells had proved that *sulphuric ether* has the wonderful power; and fearing to repeat an experiment which had just failed, *he* determines to try the ether. He seeks for an influential friend, and finds him in *Professor* Charles T. Jackson (God save the mark)! and on the 30th of September 1846, twenty-two months *after* Dr. Wells proved the fact on himself, Morton pulled out a tooth for Eben Frost without pain. The professor now, however, steps in for his share. The Letheon is patented. The Boston surgeons use it in the hospital. Bigelow sends it to Liston, who telegraphs to Edinburgh—Glory! we have conquered pain. The stolen goods is contended for by the first rogue, who finds himself cheated out of the credit by the second, who is a professor, and has the cards over him. They fight over the glittering prize. Meanwhile, the *world* weeps with joy at the blessed boon, and a thousand thankful hearts throughout the civilized earth send up their grateful prayers to God for the unutterable blessing.

Where is the discoverer—he who thought it first—proved it first—he who ventured all—yea, his life, for the truth—where is Horace Wells?

Defrauded of his honors, betrayed by his friend, deserted by good fortune, his body shattered by the constant use of all sorts of excitants—still experimenting on himself—his mind ill regulated, impulsive, tortured by the cruel fate which seemed to await him; 'twas more than he could bear. Mankind looked here and there eagerly for their benefactor, and found him at last—*in the suicide's grave.*

We bring before you, reader, in a few words, this mournful story, because it is right that *we*, American physicians, who are proud to claim as *ours* this greatest gift to medical science, should not neglect to do honor to its real author. His wife lives yet to pray that this may be done. His son asks that his fathers claim shall be closely scrutinized, and if proved, acknowledged and published to the world. It is substantiated by evidence* too strong to be otberthrown—by facts deposed and sworn to by numerous witnesses above suspicion. Let us then individually examine for ourselves, and then unite with one accord to award tardy justice to the memory of Horace Wells.

NOTE UPON ODONTOLOGY.—*By Christopher Johnston, M. D.* Who ever takes the trouble to compare an ancient with a recent treatise upon geology finds himself much perplexed to reconcile the differing nomenclature; and it is not until he has fully comprehended the broad and certain basis of modern geology, and realized the vast, important, nay, indispensable aid which paleontology affords in the identification, the separation, and the grouping together of, perhaps, every particular stratum composing the earth's crust, that he becomes aware in how grand a manner a great subject is treated by modern scientists. In former times, there prevailed, in every department of learning, systems, theories, and classifications, which waxed and waned, and were supplanted by other speculative substitutes for truth. In medicine, for example, the tenets of Galen ruled physicians for centuries, and were maintained in the schools, even when in opposition to observed phenomena of nature. It was enough to affirm "*Dixit Galenus*" to overwhelm the laborious and patient investigator, who must, henceforth, content himself with viewing everything in the glimmer of artificial light. In geology, there resulted from a comparison of human works with those of the Divine Artificer, certain assumptions which presently came to be regarded as tests of the purity of geologic doctrine. Without taking into consideration the changes inevitable in rocks or groups of rocks, an immutable basis of primary strata was established, and on these the aqueous and volcanic rocks were set as sequence in fact and in point of time.

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* See Senator Smith's statement of the question, as laid before the committee of Congress, a copy of which, owing to the kindness of a friend, we have before us.

This theory, now nearly obsolete, gave way before the power of a higher reason, which dawned about a century ago, when Lehman, dismissing the idea of foundation and superstructure, announced a "bold generalization," which referred certain rocks to the period preceding the existence of created beings, and others to those epochs contemporaneous with, and following their appearance upon the earth.

"In his primitive class, he said, such as granite and gneiss, there are *no organic remains*, nor any signs of materials derived from the ruin of preëxisting rocks. Their origin, therefore, may have been purely chemical, antecedent to the creation of living beings, and probably, coeval with the birth of the world itself. The secondary formations, on the contrary, which often contain sand, pebbles, and *organic remains*, must have been mechanical deposits, produced after the planet had become the habitation of plants and animals.*

The investigation of facts has measurably replaced the study of theories, and the geological problem of now-a-days involves three questions, namely, *superposition*, *mineral composition*, and *organic remains*, being an addition of two elements to the single proposition of ancient writers upon the formation and precedence of the earth's strata. Therefore, every work upon geology must embrace these considerations, at the least; and while the field of inquiry is greatly extended, the varied sources of information render knowledge more certain, more precise, more massive.

Paleontology, or the science which treats of fossil remains, both animal and vegetable, is not to be understood as simply determining the structure and probable form and appearance of things which once had life. It goes further than this; the characters that derive from it become associated with the age of a formation, and constitute a criterion of the highest importance in the comparison of contemporaneous strata, and the distinction of strata, the dates of origin of which are separated by an interval of lesser or greater extent. The study of paleontology, consequently, necessitates, and almost presupposes an acquaintance with geology; for, however interesting the fact that such an animal or such a plant was invested with a particular form, agreeable or hideous, it is almost valueless in science, unless the surroundings are also known, such as the circumstances under which it existed, as the climate, the part of the globe, the habits, whether of mountain or valley, of lake, river or sea, and what is equally consequential, the *age* of the formation upon which it appeared, flourished, and finally became entombed.

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* Lyell, Elements of Geology.

It oftentimes happens that the conditions under which an animal has been buried in soil, were unfavorable for the preservation of even those parts of the body which usually resist decay; so that it behooves the paleontologist to familiarize himself with the characters of minutest recognizable portions that have escaped decomposition. But it is a convertible proposition that, to know what is new, one must know what is old—therefore, to know whether an organism belonged to a pre-Adamic period, an acquaintance with the natural history of the human period is indispensable; and not only that, without a complete knowledge of the compared anatomy of existing genera and species, it would be impossible to refer fragmentary integrals of a lost being to their true position in the economy, as well as to assign the creature a proper place in the animated scale. Suppose, for instance, that a broken bone be disinterred, or lay exposed to the light by the falling in of the earth of a river's bank, the first question that arises is, to what animal did that bone belong? The comparative anatomist, knowing what it is, recognizes the fragment as a portion of the skeleton of a horse. But a greater difficulty now arises; was the living possessor of that bone a representative of an ancient type, or did he, as a member of a recent species, roam the plains from which civilization has driven his wild fellows, or on which it has yoked them to the plow? Comparative anatomy, paleontology and geology, must tell in what age, and upon what stratum of the earth's crust he stamped the hoof.

What we here suppose for illustration did actually occur. In 1855, Prof. F. S. Holmes, of Charleston, S. C., collected on Ashley river, from *post-pliocene* beds (the first removed in antiquity from the new estor *recent* strata), a great number of fossil bones. These were recognized as remains of the horse, hog, sheep, dog and ox; bison, tapir, peccary, beaver, muskrat and elk; mastodon, megatherium, megalonyx, glyptodon, mylodon and hipparion. In such company, could the horse be claimed as recent? or had horse, ox and sheep become accidental occupants of the same beds with true post-pliocene and eocene fossils? Now there occurred, scattered among these bones, *teeth* of all, or nearly all the animals named. These organs, the hardest and most enduring parts of the animal, are not unfrequently the sole remaining traces of creatures which the past has swallowed up; and their distinctive number, form, structure, mode of growth, and succession, all harmonizing with the various functions assigned to them in different classes, orders, and genera, and with the modifications concomitant with specific differences of habit. So positive are the indications afforded by the teeth, that not only may the animal, once possessing it, be named with certainty, mammal, reptile, or fish, but be identified as horse, mastodon, elephant, saurian, batrachian, shark, or ray; its age, its species, may be ascertained, and even the nature of its food and its habits. It is not, therefore, surprising that odontology, as a chief department of comparative anatomy, should have borne a notable part in the investigation of the post-pliocene fossils of the Ashley river.

No country offers the odontologist a richer field than our own America, older, geologically, than "old" Europe. In every quarter the disemboweled earth yields up its fossil treasures—here of mammal, there of fishes, and in the Cretaceous, east, south and west, a profusion of reptilian remains. Among the most remarkable of these last are the teeth of a thecodont saurian, which we have named Astrodon, found near Bladensburg; the magnificent teeth, jaw, and humerus of *Mosasaurus,* discovered near Wilmington, Del.; and the colossal bones and exquisitely beautiful teeth of *Hadrosaurus*, an extinct lizard. This huge herbivorous saurian, allied to the famed *Iguanodon* of the Wealden England, was about twenty-five feet in length. Its *humerus* is twenty-three inches long, and seven inches broad at the tuberosities; the *ulna* twenty-three inches long and seven inches in circumference at the middle. The *femur* is no less than forty inches in length, ten inches wide through the internal condyle, and seventeen inches in circumference midway in its length; and the *tibia* measured thirty-six and a half inches, the circumference being about twelve inches.

It was no difficult matter for a Leidy to recognize in this gigantic skeleton the framework of a lizard, and to affirm its high antiquity. But the diet of ancient, as well as of existing lizards, was various; some saurians feeding on insects, or birds, or flesh, in some form, while others are vegetable feeders, a circumstance to which the feet and jaws point vaguely, but which is established in the most positive manner by those organs having a first and very close relation with the aliment, the teeth. The tooth of Iguanodon found isolated in the Wealden, by Mantell, was not recognized as saurian by Cuvier, who, nevertheless, in referring it to an extinct rhinoceros, showed that its form, structure, and manner of wear, left no doubt as to the herbivorous character of its possessor. But he subsequently justified himself fully, and proclaimed the true affinities of the great extinct creature, declaring it to have been a herbivorous saurian.

Of Hadrosaurus, a number of teeth were found, black, and well preserved, and conical on one side; the other being wrought into two lateral grooves, leaving a sharp longitudinal ridge in the middle, like the side of a bayonet. Certain data were furnished by these portions of the buccal armature as to the feeding habits of the great extinct saurian;

and Hadrosaurus was, from all the indications, declared to be an amphibious and *herbivorous* lizard. We enjoyed the rare opportunity of making thin sections of one of the teeth, which we shared with Prof. Leidy, and certainly nothing could exceed the beauty of the microscopic structure, far surpassing that of the renowned Iguanodon, nor could any testimony be more conclusive as to the use to which the tooth must have been applied. It is typically herbivorous.

Every day is bringing new facts to science, and enlarging the mind of man to fit him for a more worshipful contemplation of the Creator in the grandeur and exhaustless fertility of design in His works. From the remotest periods, a procession of organic forms advances slowly through the misty portals of time. As it proceeds, new things, endowed with life and action, join the throng; but old forms drop by the wayside, and appear no more forever, but as inanimate dust, marking the 'footprints of the Creator.' The great earth itself is rent with commotions—a continent sinks below or rises above the mighty deep—but onward, still onward, grandly moves the pageant, ever more in the growing light. The ground trembles beneath its heavy tread—its pulse beats the 'seconds of eternity,' and its voices shake the air as an awful shout goes up when the Almighty places a spark of His own immortality upon the brow of the noblest, the lordliest form of being, and with which Divinity itself will deign to be invested.

We swell the living crowd; and shall we not learn from the pathway that has been trodden, whither we are tending?—*American Journal of Dental Science.*

RICHARD OWEN, F. R. S.—Richard Owen, F. R. S., Hunterian Professor to the Royal College of Surgeons, is without question one of the most remarkable men of the present day. Laboring in the same field in which Cuvier, De Blainville, Agassiz and Leidy have accomplished so much, he stands second to none of them. Possessing in a remarkable degree the talent of patient observation and research, demanding frequently months and years in solving a single fact, he enjoys, in addition, that rarest of all qualities, the highest capacities for the broadest generalizations. In support of this conclusion, we would refer to his "Odontography, a Treatise on the Comparative Anatomy of the Teeth, their physiological relations, mode of development, and microscopic structure in Verterbrate Animals." In this work he has, we were going to say, exhausted the field, but correct the remark, on remembering that the Paleontologist (particularly in our own country) is constantly discovering new genera of the extinct species, thus swelling the list of dental organs yet to be described. Some idea of the labor expended upon the work may be realized by looking over the Atlas, which contains one-hundred and fifty plates, with beautifully executed engravings of the general and microscopical structure of the teeth of extinct and living vertebrata. The description in the text, of the dental organs, was in every instance taken from actual specimens that he had under examination at the time. To accomplish this, after exhausting the collection in his own country, he visited the Continent, and examined the Parisian Museum, and the Anatomical and Zoölogical Collections at Leyden and Frankfort, and, in addition, was furnished with many valuable specimens by private friends, among whom we find Sir Philip Egerton, Dr. Buckland, and Prof. Agassiz. The size of the work and the numerous engravings make it so expensive ($36), that the number of purchasers must, of necessity, be limited. It cannot be expected, therefore, that every dental practioner would be able to procure a copy, but the library of each local Association should possess one. The dental profession in particular are under great obligations to Prof. Owen for much of their knowledge of the development and general and microscopical structure of the teeth. To him we are indebted for the term Dentine, in place of the unsatisfactory and indefinite expressions, "ivory" and tooth bone."

Such men are rare; they should be prized, honored, and emulated. Believing that the antecedents of such a man cannot be uninteresting to our readers, without further comment we refer them to the following:

"At a recent dinner of the Medical Society, the following remarks were made by Professor Owen on the occasion of his health being drunk. He said, he wished it to be understood that he was not a mere man of science, but that he was really and truly one of the body of gentlemen whom he was addressing; in fact, that he was a medical man. After finishing his studies in Edinburgh, he came back to London, and became a licentiate of the Apothecaries' Company, and a member of the Royal College of Surgeons. He then started in practice, taking up his abode between Bartholomew's Hospital and Lincon's-Inn-Fields; in fact, he became as much a practitioner as any of those whom he was addressing. He had brought young children into the world, and had made acquaintance with breech and other abnormal presentations. He had performed numerous surgical operations, some capital ones, and could boast that he never had an unsuccessful case. This was in 1827. Shortly afterwards, it happened that Mr. Abernethy was looking out for some one to assist Mr. Clift in arranging and cataloguing the Hunterian Museum. Mr. Clift was fully up to his work; but he wanted some one, fresh from the schools, who was acquainted with the modern scientific phraseology of zoölogy and pathology to aid him in the task. Mr. Abernethy pitched upon Mr. Owen, and he was offered and accepted the post; but he still, for many years, continued his private practice, a certain number of hours only being devoted to the College. During this time Mr. Clift was also aided by his son, who would naturally have succeeded him. In 1833, however, this beloved son of Mr. Clift died, and then the office he had held, was open to Mr. Owen; but, if he accepted it, he was to retire from practice. 'I was deeply attached,' said Mr. Owen, 'to Mr. Clift, but I also loved his daughter,' and this decided his choice. He thenceforth devoted the whole of his time to the College. In 1836 Sir Charles Bell left London for Edinburgh, and Mr. Owen was then appointed Hunterian Professor. What he then did, how he labored in behalf of the College during the twenty best years of his life, may be gathered from the existence of the famous volumes—the catalogue of the Hunterian Museum. Few people, perhaps, have an idea of the labor expended on those volumes. All that Hunter left as a guide to the preparations he had made and left behind him, were a few sheets of writing paper, about half an inch thick. The truth is, he had no time for writing down the details of all the wonderful things he left behind him. Happily the Zöological Society was then established; indeed, without its aid we never should have been able to have had catalogued and described all the dissections and preparations left by Mr. Hunter; we should not have known what they were. The astounding industry and genius of Mr. Hunter were then displayed. His genius, indeed, had penetrated far back into the zöology of other days; and in his museum he left behind him the germ of all the surpassing discoveries since made in paleontology; he left enough to prove that his acute mind had embraced even this vast subject, and had appreciated the stores of matter to be derived from its study. For twenty years, then, Mr. Owen devoted himself to this labor, and the thin manuscript of

John Hunter was gradually expanded into those piles of volumes—the catalogue of the College of Surgeons. But corporate bodies have no conscience; and 'when my years of labor were concluded, I received,' said Mr. Owen, '*the thanks of the College of Surgeons!*'"—*Dental Cosmos.*

Dr. Leared on Homœopathy.—You may, perhaps, think the bulk, taste, or form of administration of medicines comparatively immaterial matters. I am not of this opinion. I think the dread of nasty doses has been the cause of great accessions to the ranks of homœopathy. I have repeatedly heard persons declare that dread to have been an inducement for adopting the system of delusion. Nor is it to be wondered at, if we consider how very few are capable of weighing the overpowering evidence against homœopathy, and on the other hand of those who are capable, how few really take the trouble to do so. I would have you then to avoid bulky doses. For efficacy or safety, certain medicines absolutely require considerable dilution. But these cases are exceptional—if, therefore, one spoonful can take the place of two or three, always let it do so. If the choice lies between an electuary and a pill, give the latter the preference. The study of the taste of medicines is of wider consideration, and well worthy your close attention. It is no small aggravation of suffering in illness to be compelled to do violence to a sense usually morbidly sensitive. On the subject of the administration of substances under the name of medicines, for sake of the mental impression produced, I have a few words to say. It is certain that cases occur in which the practice is defensible. Instances are recorded in which faith in some inert substance has effected cures and even stayed a pestilence. The intimate relation between the corporeal functions and mental impressions is sufficient to explain this. It would be wrong to deprive ourselves of any means not merely of cure, but of relieving suffering. But instances in which these measures are necessary are altogether exceptional. Let them always be conducted without direct compromise of truth, and entirely avoided if possible.—*Introductory Lecture.*

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CLINICAL REPORT

ON CASES OBSERVED AT THE NEW ORLEANS CHARITY HOSPITAL.

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MISCELLANEOUS CASES.

In my three preceeding reports I have taken up the cases of Pneumonia, of Diseases of the Heart, and of Typhoid Fever, observed at the Charity Hospital in 1858–9. One more report only can appear in the *New Orleans Medical News and Hospital Gazette* before another term of hospital service commences. This will, therefore, be my concluding report of the cases which came under observation during the last college-session. I shall select for this report several miscellaneous cases of interest, pursuing the same plan as heretofore, viz. : giving a succinct account of the history of the cases, and appending to each case a few practical remarks.

The cases which I have selected for this report are as follows: 1. A case of General Paralysis. 2. A case of Albuminuria. 3. A case of Acute Peritonitis. 4. A case of Ascites. 5. A case of Ascites. 6. A case of Accute Phthisis.

CASE 1. *General Paralysis, upper extremities especially affected. Phonation affected, without difficulty of respiration. Marked improvement.*

Adam Briber, German, aged 36, was an inmate of the hospital when my service commenced, Nov. 20th, 1858. He was admitied Oct. 12th.

The details of the previous history were not obtained, owing to his mental obtuseness, the labor of speaking, and his imperfect knowledge of our language. The paralytic affection had existed for two months prior to his admission, and he had suffered for two years from ailments which he called rheumatic.

The upper and lower extremities were incompletely paralyzed. He had kept the bed constantly since his admission. The loss of power over the upper extremities was greater than over the lower. The left upper extremity was more affected than the right. He was unable to raise the left arm and was able to make only slight pressure with the hand. The lower limbs he moved freely in bed. The sense of tact and the impressibility to pain, on examination by palpation and with the æsthesiometer of Dr. Sieveking, appeared not to be impaired. The face was not paralyzed. The tongue was projected readily, and in a right line. The uvula did not incline to either side. There was almost complete aphonia. He spoke with difficulty in whispers, apparently from inability to command his breath sufficiently for this purpose. With a strong effort he could only say short words, such as *yes* or *no*, in a loud voice and in a grave tone. Breathing, however, was not labored, and the respiratory movements, on forced acts of respiration, of the chest and diaphragm, were marked. There was no difficulty in urination. The appetite and digestion were good. Aspect not morbid, but his countenance denoted imbecility.

No cough. The pulse was normal in both wrists. The heart-sounds were normal. The spine was tender on pressure over the dorsal and lumbar portions; more over the latter than over the former; and the tenderness was more marked on the left than on the right side of the spinous processes. There was no projection at any point over the spine, nor curvature. The paralysis had been gradually developed, and could not be traced to any injury, nor to any exposure to lead.

Nov. 24th, the ward nurse was directed to take this patient out of bed and cause him to sit up. The patient submitted to this with reluctance. He made no efforts to assist the nurse, but was as passive in his hands as a cadaver.

Dec. 3d. It was noted that the aspect of the patient was much improved. The plan of causing him to sit up daily had been persevered in, and he now sat up about four hours each day. The day previous, for the first time, he had walked across the ward, supported by the nurse. The nurse was directed to cause him to walk frequently.

Dec. 24th. The following is the note under this date: "The improvement in this case is remarkable. He now sits up all the day; and he walks, with a little assistance. The countenance expresses much more intelligence. He is now desirous of being up as much as possible. He has acquired considerable power over the upper extremities. He speaks in a loud voice still, with difficulty, but has improved in this respect. He was able yesterday to walk across the ward without assistance. The bowels are habitually constipated."

Jan. 8th, 1859. The improvement was still progressive. He was able to walk without difficulty. The improvement as regards the voice was marked.

Feb. 12th. The improvement had continued. A striking change had taken place in his aspect. His expression now denoted intelligence, brightness and animation. The voice was almost completely recovered. He remained up from 5, A. M., to 6, P. M., and was able to make his own bed. The appetite and digestion were good, and the bowels were regular.

The hypo-phosphite of soda was prescribed soon after the case came under observation, in doses of a scruple three times daily. This remedy was continued for several weeks, and then discontinued, in order to observe whether the improvement was as marked without it as under its use. It was resumed after four weeks, my impression being that the progress was not as rapid after it was withdrawn as previously. This constituted the remedial treatment; excepting the administration of Huxham's tincture of bark in drachm doses, as a placebo, while the hypo-phosphite of soda was discontinued. Full diet was directed, and a portion of the time a little brandy.

Remarks.—The seat of the morbid condition of the nervous system giving rise to the paralysis in this case, was the spinal cord. This is inferred from the fact of the muscles of the four extremities being involved, and the exemption of the muscles supplied by the cranial nerves. The history of the case as regards the improvement, amounting nearly to recovery, while the patient was under observation, renders it probable that the morbid condition of the cord was merely functional, or, at least, that disorganizing lesions did not exist. This, however, it is to be considered, could not be predicated on the symptoms of the case. It is an inference from the result, and is, therefore, an after conclusion. The prognosis, in such instances, is to be based on the existence or non-existence of serious structural changes; and whether these exist, or not, cannot always be determined positively from the symptomatic phenomena. When there is room for doubt on this score, the practitioner is bound to act with the hope that the difficulty is merely functional and consequently remediable. This secures for the patient the advantages of judicious measures of treatment, provided the hope be well founded, and exposes him to no damage if the hope turns out to be groundless. This practical precept is of immense importance; for functional paralysis if it continue, involves after a time, from its continuance, anatomical changes in the muscular and nervous fibres, precluding the hope of recovery, which at an earlier period might have been entertained. The practitioner should never lose sight of the fact that paralysis may become hopeless from its mere continuance. All ground of hope may be destroyed by the want of hope in season for measures of restoration to prove efficient. Paralytics not infrequently remain so, simply because the prognosis is unfavorable as judged by the law of probabilities. In other words, the want of success in a large proportion of cases discourages effort on the part of physician and patient which might have proved successful. If the paralysis be functional, recovery may be looked for with much confidence; and even when it depends on lesions of structure, a partial recovery is not always out of the question.

In the case now reported, the hypo-phosphite of soda was prescribed under the belief that phosphorus is a valuable remedy in certain affections of the nervous system. According to this remedy some influence, much more importance is to be attached to the moral and physical effects of the hygienic management. From non-exertion of the functions of body and mind, the patient had fallen into a state of apathy verging towards imbecility. This is the inevitable result of complete inactivity of sufficiently long duration. The patient had resigned himself to a hopeless condition, and he had become contented with a vegetative existence. He would never have taken the initiative in attempting to regain his lost powers. It was necessary to compel him to make the needed attempt. His mind was roused by taking him out of bed, and awakening his attention to himself and others. To develop his own interest in his recovery, was the first step, because his coöperation in the means of recovery was necessary. When this was accomplished, the means of recovery consisted mainly in the daily, persevering exercise of the paralyzed muscles. Let us consider, for a moment, the importance of this simple measure of treatment—a measure undervalued, and thereby neglected, from its very simplicity.

We will assume that certain muscles have been paralyzed for some weeks or months, and the original morbid condition determining the paralysis, no longer exists; do the affected muscles, of their own accord, without any effort on the part of the patient, resume at once their former capability of action? That they do not, is exemplified by the effects of disuse of an upper and lower extremity in cases of fracture. After having been kept, from necessity, perfectly inactive for several weeks, the result is an incomplete paralysis; which is overcome, gradually, by exercise, until the powers which had been impaired simply by non-exertion, are fully restored. Without voluntary efforts on the part of the patient, this paralysis from disease would continue, and, at length, the capability of restoration would be lost. So, when paralysis is the result of a morbid condition of the nervous system: after this condition is removed, the affected muscles regain the ability to fulfill their functions only by means of exercise. If the morbid condition giving rise to the paralysis involve a lesion, for example an apopletic extravasation, the immediate effect may be loss of power over certain muscles, which is more or less complete; but, after a time, by means of judiciously regulated and persevering exercise, considerable improvement may be effected, notwithstanding the cerebral lesion remains.

This principle is the basis of the successful treatment of paralysis. It is because this princple is not fully appreciated, and therefore not faithfully applied, that the treatment of paralysis is so generally unsuccessful. Comparatively speaking, remedial measures, such as electricity and strychnia, are of little value. Indeed, if these measures are relied upon to the exclusion of systematic, persistent efforts to regain the use of paralyzed muscles by means of exercise, they are more than valueless, since they stand in the way of the plan of treatment which offers the best chance for success. As this plan can only be effectually carried out with the coöperation of the patient, his interest is to be awakened, and his hopes encouraged, sufficiently to give the plan a fair trial.

The case now reported is highly interesting in another point of view. The faculty of phonation was nearly lost, while the muscles involved in respiration were but little, if at all, affected. The researches of Bernard have shown that the spinal accessory is to be regarded as the nerve of phonation. There was no evidence that the respiratory movements of the glottis were impaired in this case, but only the movements necessary for the production of the voice. As remarked by Bouillaud, some of the most valuable experiments to illustrate truths of physiology are instituted by disease; and in this instance, we have, as it were, an experimental demonstration of the discovery of Bernard.

Case 2.—*Albuminuria—General Dropsy. Bright's Dis-*

case.—Wm. Nixon, laborer, Irish, aged 22, admitted Nov. 17, 1858.

This patient stated that the commencement of his illness was three weeks before his admission. He had excellent health, and had labored constantly for five years previously. He was treated in this hospital, in 1853, for bilious fever.

His present ailments commenced with the loss of appetite, occasional nausea, and debility. The symptoms progressively increased; but he kept about, although unable to labor, till the date of his admission, when he took to the bed. He improved after his admission, so that at the time the first note of the case was made, Nov. 20th, he was able to sit up and walk about.

He complained of no pain, but some uneasiness at the lower part of the chest in front on the right side, and in the lower limbs. The appetite had become tolerable. He had not had diarrhœa. He had noticed nothing unusual as regards the quantity or the appearance of the urine. A few days before his admission he had observed swelling of the lower extremities, and, shortly afteward, of the face. The legs were moderately œdematous. The upper extremities did not appear to be increased in size. The integument over the sternum pitted on pressure. There was considerable œdema of the face. The face was pallid, and the prolabia exsanguine. The pulse was 80, and feeble. The respirations were 20. There was deficency of breath on exercise, but otherwise no dyspnœa. His vision was good.

On examination of the chest, the cardiac sounds were normal, and unattended by murmur. A small quantity of liquid was effused within the pleural sac on both sides, as determined by the variation of the limit of flatness in different positions of the body.

The urine was loaded with albumen, and presented a smoky appearance.

Nov. 21st. The day after the foregoing record was made diarrhœa occurred, no medicine having been prescribed. The dejections were frequent, large and liquid. The diarrhœa continued for several days, and gradually diminished, no remedies being given to restrain it. He reported daily improvement in other respects. The œdema diminished. Epistaxis occurred repeatedly, but slight in degree. The diarrhœa at length ceased; and on the 29th of Nov, he felt sufficiently well to leave the hospital, and he was discharged.

The urine contained albumen in abundance at the time of his discharge, anæmic appearance continued.

The treatment consisted at first of the citrate of potassa, and afterward of the citrate of iron, with nutritious diet.

Remarks.—This case presents no points of particular interest, but it will serve as a text for some practical remarks. Late researches have shown that Bright's disease, instead of having certain definite, uniform anatomical characters, involves various abnormal conditions of the kidney. In fact, it is evident that under this title are embraced several varities of disease. Taking pathological anatomy as the standpoint, the diversity of morbid changes, their primary seat, their character and their effects, as investigated by Dr. Geo. Johnson, and others, offer a most interesting and important field of study. These different conditions are to some extent represented, during life, by the various appearances presented by the casts derived from the renal tubes, and contained in the sedimentary deposits of the urine. I do not, however, propose to consider questions connected with the different forms of lesion which are found after death, but to offer some remarks on the cases generally included under the head of Bright's Disease, as regarded in a clinical point of view.

A patient with general dropsy, and the urine highly or considerably albuminous, is generally said to be affected with Bright's Disease. Now, these symptoms may disappear in the course of a few weeks, or even days, and not return; the patient's recovery being complete. This occurs when the affection is developed in pregnancy, and after scarlatina; but it also occurs when the affection is isolated from these connections, and apparently idiopathic. I have met with several instances of the latter description. If it be proper to apply the term Bright's Disease to these cases, it is evident that the disease does not always involve permanent lesions of the kidney. An acute renal affection exists, in such instances, without leading to structural changes. The continuance of these symptoms for weeks and months, denotes a chronic affection which generally involves degeneration of structure in the kidney. These cases are sufficiently unpromising, but not necessarily so hopeless as they are sometimes regarded. I have met with cases in which great relief, and even apparent recovery, occurred under these circumstances. The practioner should not give too discouraging a prognosis, nor consider all efforts in the way of management utterly hopeless. In the kidneys, as in other organs, nature has been bountiful in according a greater quantity of secreting tissue than is absolutely required; hence, these organs may be considerably damaged, and yet be able to fulfill those functions to the extent demanded for the preservation of life and tolerable health.

The evils and the dangers incident to the affection, so far as these are intelligible with our present knowledge, arise mainly from two sources, viz: the loss of albumen, in consequence of its elimination with the urine, and the retention in the blood of the urinary principles. Indications for treatment are derived from these two sources of pathological effects. Tonics, and nutritious diet rich in albuminous constituents, are indicated by the former, and measures to prevent and relieve uræmia are indicated by the latter. Diarrhœa occuring spontaneously, as in the case reported, is to be regarded as an effort of nature to effect a vicarious excretion of urea through the intestinal canal. It is not, therefore, wise to attempt to arrest the discharges.

The events embraced in the clinical history of Bright's Disease, and their pathological relations to the morbid condition of the kidney, would lead to a field of remarks far too extended to be entered upon here. The case which has served as text for the foregoing general remarks, represents a class of cases often met with in hospital practice. Patients are admitted with anœmia, general dropsy, and debility; and after remaining in hospital a short time, these symptoms are so far relieved that they feel able to return to labor, and desire to be discharged. The patients are usually careless as regards exposure, etc., and addicted to intemperance. They leave the hospital improved, but not cured; nor is there much ground for the expectation of cure were they to remain ever so long. It would be, perhaps, as well for them to leave the hospital as to remain, if they were able or willing to pursue a proper hygienic course. But returning to their old ways of living, their ailments soon return; and they are forced, after a time, again to seek refuge in a hospital. The time arrives when, if not carried off by pericarditis or some other serious inflammation, or uræmic coma, the dropsy becomes permanent; the powers of life are too much exhausted to admit of even temporary improvement, and the disease proves fatal by slow asthenia.

CASE 3.—*Acute Peritonitis. Recovery.*—John Newman, aged 21, was admitted Nov. 21st, with intermittent fever. The sulphate of quinia was prescribed, and he reported daily improvement, being always up and dressed, and going out of doors. During the night of Dec. 1st, he was attacked with severe pain in the abdomen. At my morning visit I found him suffering greatly from pain, which he referred to the upper part of the abdomen. The abdomen was exceedingly tender on pressure, and the suffering from pressure proportionate to the force employed. There was rigidity of the recti muscles, but no enlargement of abdomen. The pulse was frequent, and the countenance expressed anxiety and suffering. A grain of sulphate of morphine was at once given, with directions to repeat this remedy in half-grain doses every four or six hours, if the pain continued. During the day and night three grains of the sulphate of morphia were given. The quantity sufficed to render him comparatively comfortable. During the day and night he vomited repeatedly, the acts of vomiting causing excruciating pain. He had also several dejections from the bowels.

Dec. 3. The pain continued, but was less severe, and he was moderately under the influence of the remedy. The pain was lancinating in character. Tenderness was marked over the entire abdomen, but without tympanitic distension, or marked rigidity. Coughing or moving occasioned great pain. The pulse was 128, small, vibratory. The skin was hot and dry. The decubitus was on the back, with the knees drawn up much of the time, but not constantly. The respirations were 30, and the respiratory movements costal. The urine was not albuminous. The treatment directed was, the sulphiate of morphia gr. ss. every three hours.

Dec. 4. He reported better. From a misapprehension as regards the treatment directed, he got only half a grain of the sulphate of morphia. Decubitus on the side, with the knees drawn up. Tenderness over the abdomen continued but without tympanitic distension. Muscular rigidity of the muscular walls was observed when pressure was made. The pulse was 100; the respiration 28, and costal. No dejection since the night previous, but vomiting had occurred several times. Auscultation of the abdomen did not disclose friction-sounds, but borborygmi in abundance. On being questioned, the patient stated that he had frequent erections, with strong desire for coitus. These erotic paroxysms continued for about five minutes. The treatment directed was, half a grain of the sulphate of morphia every three hours.

Dec. 5th. The patient reported free from pain. The abdomen was moderately tympanitic, and tender on pressure. No dejection. Priapism had not occurred. The pulse was 76, and the respiration 16. Half a grain of the sulphate of morphia was directed every four or six hours.

Dec. 6th. The patient was comfortable. Moderate tympanites continued, with tenderness on firm pressure. The pulse was 70, and the respirations 20. No priapism. Half a grain of the sulphate of morphia was directed every six hours. Essence of beef and milk for diet.

Dec. 7. The patient complained of pain in the abdomen. The abdominal tenderness was increased. The pulse was 66, and the respirations 16. No dejection. Half a grain of morphia was directed every four hours. Diet as before.

Dec. 8. The patient was free from pain. No dejection. The pulse was 64, and the respirations 16. The treatment was continued.

Dec. 10th. The patient reported daily better. No dejection since the 4th inst. Pulse 78, and respirations 20. The treatment was continued.

Dec. 14th. The patient complained of no pain, except with movements of the body. Tenderness on deep pressure continued, with some rigidity. No dejection had occurred since the 4th inst. (ten days), and he was anxious to have a cathartic medicine prescribed. For several days he had been desirous of sitting up, and was permitted to do so on this date. The sulphate of morphia was reduced to a quarter of a grain three times daily.

Dec. 15th. A solid dejection had occurred, the first since the 4th inst. The patient was able to sit up for a short time. Treatment was continued.

Dec. 24th. Up to this date the patient had continued to convalesce. The sulphate of morphia had been continued. Milk-punch had been given, and improved diet allowed. During the night preceding the present date he was seized with diarrhœa, which was relieved by an enema of laudanum. The pulse was 60, and the repirations 16.

Dec. 29th. Diarrhœa recurred, but was promptly relieved by an enema of laudanum. Five grains of the sulphate of quinia and two grains of opium were directed three times daily, with milk-punch and nutritious diet.

Jan. 8th, 1859. The patient had contiuued to convalesce, excepting occasional slight recurrences of diarrhœa. The opium was diminished on this date to one grain three times daily, and in a few days withdrawn.

The patient was discharged quite well, January 12th.

Remarks.—This case is of interest on account of the infrequency of acute, idiopathic peritonitis in the male sex. If we exclude the cases in which the disease is traumatic, and those in which it is due to perforation of the intestines, peritonitis is certainly one of the rarest of diseases. It is less infrequent in females than in males, exclusive of the cases in which it is developed in connection with the puerperal state. In this case the disease was developed in the hospital, without any appreciable cause. It was apparently purely idiopathic.

The case is interesting, as illustrating the opiate plan of treatment. The sulphate of morphia, opium, and laudanum by enema, were the only remedies prescribed, excepting the sulphate of quinia after convalescence was established. The treatment thus, was exclusively opiate. Mercury, bloodletting, counter-irritation were not employed. Cathartics, or laxatives, were not given, even after convalescence; and the bowels were allowed to remain unmoved for eleven days. The quantity of opiate remedies given, however, was not excessive, three grains of the sulphate of morphia on the first day being the maximum; and afterward, during the career of the disease, about two grains daily, constituting the treatment. So far as the issue and progress of the case furnish evidence of successful treatment, it was certainly all that could be expected. The acute pain ceased when the patient was brought under the influence of the anodyne; the tympanitic distension of the abdomen was not great; the pulse, which on the second day was 128, fell on the fourth day to 100, and on the fifth day to 76. As is not uncommon in this disease, after the intensity of the inflamation had ceased the pulse fell below the average frequency; on the eighth day it was 64. I have observed the pulse under these circumstances to become irregular, as well as infrequent. The patient was able to sit up on the fifteenth day. Convalescence was only interrupted by occasional attacks of diarrhœa, which was promptly relieved by enemas of laudanum. The convalescence, however, as is usual, was slow; and the patient was not well enough to be discharged until forty-three days after the date of the attack.

The method of treating acute peritonitis exclusively by opium, was inaugurated (to use the term just now in vogue) by Prof. Alonzo Clark. Prof. Clark demonstrated, some ten years ago, the power of this remedy in controlling the disease, and the remarkable tolerance of the remedy in certain cases. Observation by himself and others since the publication of the reports of cases of puerperal peritonitis treated at the Bellevue Hospital, has shown that the large doses of opium given in these cases are by no means always required. The plan of treatment is to induce a narcotic effect sufficiently to relieve entirely the abdominal pain, and to maintain this effect steadily throughout the career of the disease. The difference in the susceptibility to this effect is so great in different cases, that it is out of the question to formularize the administration of the opiate remedy. Small doses will suffice in some cases, and in other cases enormous quantities are requisite. The doses and their repetitions are to be determined in individual cases by the effect, the object being to carry the remedy to the extent of subduing pain; but, of course, taking care to avoid a dangerous degree of narcotism. The form of opiate is also to be determined by circumstances in individual cases. If opium be used, a liquid form instead of the solid gum is to be preferred, because the doses are more easily regulated by the effects. The salts of morphia are probably not less efficacious, and they are administered more easily than other forms. These may be placed dry upon the tongue, if, as is sometimes the case, irritability of the stomach conflicts with the administration of remedies by the mouth. They may also be employed efficiently by sprinkling upon a blistered surface denuded of the cuticle.

Prof. Clark has rendered a great service to practical medicine and to humanity by establishing the merits of this method of treating accute peritonitis. If pursued judiciously and boldly, a large proportion of the cases which, judged by former experience, would have otherwise ended fatally, are brought to a favorable termination. The greater success in the management, however, it must be confessed, may be in part owing to the discontinuance of measures which were injurious. In this light we must regard blood-letting and cathartics. As regards blood-letting, a fair and ready way of placing before the mind its theoretical applicability to the treatment of peritonitis, is to consider the extent of surface inflamed in this disease, and the loss of blood-constituents involved in the exuded products of inflammation. The condition of a patient attacked with peritonitis is not unlike that of a person after a scald, or burn, extending over a large portion of the external surface of the body. The symptoms are analagous in the two cases, and death in both occurs by asthenia. Blood-letting is as appropriate in the one case as in the other. Of cathartics, it is only necessary to say that they conflict with the first and great indication in the treatment of all inflammations, viz: to maintain, as far as possible, repose of the parts inflamed. The value of opiates in cases of peritonitis consist, in fact, of the arrest of the peristaltic movements of the intestines. These remedies have held so prominent a place in therapeutics for the last half-century, that it requires some moral courage on the part of the practitioner to permit the bowels to remain constipated for a fortnight or longer, and to resist the importunities of patient and friends for opening medicine.

It is stated in the notes of this case that the patient, during the progress of the disease, experienced frequent erections and a strong desire for coitus. This belongs to the history of acute peritonitis in certain cases; how frequently, is to be yet ascertained. In a case which came under the observation of my friend and former colleague, Prof. Rogers, of Louisville, the patient consummated the act of coitus but a short time before his death. This fact was communicated to Prof. R. by friends of the patient, in order to protect the reputation of the widow should it so happen that pregnancy followed the connection. Whether this be a common or only an accidental effect of the disease, I am not prepared to say.

CASE 4.—*Ascites, Cirrhosis. The liquid rapidly absorbed, while the patient was taking only the Huxham's tincture of bark. Advantage of the expectant system, in certain cases, illustrated, and the post-hoc-propter-hoc method of reasoning.*

The above caption is transferred from the hospital record book, where it was placed without any idea, at the time, of reporting the case. It expresses the several points of view in which the case is of interest.

Elie Monet, Frenchman, carpenter, aged 36, was admitted December 28th, 1858. He stated that he had been for several years addicted to intemperance, but had not drank freely for the preceding month and a half. He had been in ill health for six months. For over four months he had frequent attacks of intermittent fever; these had not recurred for the last month and a half. He noticed swelling of the abdomen, and about the same time of the feet, a month before his admission.

Dec. 29. The abdomen was greatly distended and fluctuation sufficiently distinct. The feet and lower limbs were moderately œdematous. There was no œdema of the face. The body was emaciated. He measured over the abdomen, just above the umbilicus, forty-one inches. There was no febrile movement. The urine was not albuminous. The bowels were open, but no diarrhœa.

A quarter of a grain of elaterium was directed every four hours, with full diet, but restriction as regards liquids.

Dec. 30. The patient had twenty liquid dejections, and had vomited twice. On measurement, the circumference of the abdomen was reduced an inch. The pulse was 120 and the respirations 30.

Full diet, milk punch and no medicine, were directed.

Dec. 31. Reported more comfortable.

A quarter of a grain of elaterium every four hours was directed.

Jan. 1, 1859. Reported comfortable. He had had eight copious liquid dejections. Abdomen diminished an inch; measuring now thirty-nine inches.

Huxham's tincture of bark, ʒ i. three times daily, was prescribed, and a dry diet.

Jan. 2. Reported the same. A quarter of a grain of elaterium three times was prescribed.

Jan. 3. The patient had ten liquid dejections. Nausea and vomiting had followed each dose of the medicine. The abdomen measured half an inch more than on the 1st inst., viz: thirty-nine and a half inches.

The urine of the patient presented purpurine in abundance.

Full diet was directed and no medicine.

Jan. 20. No records were made after January 3d up to this date, when the following was noted: "The elaterium was not repeated after the date of the last record, in consequence of the prostration which it induced, and the non-diminution of the size of the abdomen after the last doses of this remedy on the 2d inst. My intention was to discontinue medicine for a few days and then resort to tapping. As a placebo, in the meantime, the Huxham's tincture, in doses of a drachm three times daily, was prescribed. The patient has steadily improved. He reports daily better, and his aspect denotes marked improvement. The abdomen has daily diminished in size. Under these circumstances, the Huxham's tincture is continued, with full diet. He is under the impression that the medicine which he takes is doing wonders for him!

"On examination of the abdomen, the enlargement is mainly at the lower part; it bags down; and the navel is quite low, falling below the level of the crest of the ilium. Measured just above the pelvis, the circumference is 31½ inches."

Jan. 28. The patient had continued to improve. The abdomen was progressively diminishing in size. The Huxham's tincture and full diet continued to constitute the treatment.

Jan. 30. The patient declared that he was able to go to work, and was therefore discharged. The abdomen was pendulous, and no liquid was discoverable, either by palpitation or percussion. He measured over the navel, 30 inches. The liver was evidently below the usual size, as determined by palpitation and percussion. The patient, who imputed the cure to the medicine, was supplied, at his request, with a quantity, in order to continue its use after his discharge.

Remarks.—The points of interest in this case, as already stated, are embraced in the caption. The elaterium, which at first diminished the ascites, at length ceased to have this effect, and could not be borne. Tapping was resolved upon, and postponed merely for convenience, the occasion not being urgent. The improvement during the delay caused the operation to be abandoned; and inasmuch as this improvement was daily going on, when the Huxham's tincture was given as a placebo, no other remedy was prescribed. The patient was discharged sufficiently well to return to work, after having been in hospital thirty-two days.

The patient was supposed to be affected with cirrhosis of the liver. The habits of the patient, the history of the case, and the contraction of the liver as ascertained after the ascites had disappeared, rendered this diagnosis almost positive. Nor does the progress of the case disprove the correctness of the diagnosis. I have met with ancther instance in which, in like manner, the ascites disappeared, and the patient was exempt from it for several weeks; but it afterward returned, and the disease proved fatal. The explanation of the improvement and apparent recovery, is as follows: The cirrhosed condition of the liver was not intrinsically enough to occasion dropsy under favorable hygienic circumstances. Poor living, dissipation, and the effects of intermittent fever, coöperated with the hepatic lesion in producing the ascites. These accessory causes being removed, the dropsy temporarily disappeared, notwithstanding the cirrhosis. On returning to labor, however, and resuming his old habits of life, the cirrhosis would be likely to progress; and probably, ere this time, the ascites has returned, and the disease has, perhaps, ended fatally.

CASE—5. *Ascites, Cirrhosis. Fatal. Autopsy.*

In the following case, the same affections as in the preceding case led to a different termination. This case may be considered as furnishing the complement of the after-history in the preceding case.

Francis Picard, Frenchman, laborer, aged 35, was admitted February 3d, 1859.

The abdomen was enormously distended. In the recumbent position on the back, the whole abdomen was resonant on percussion. In the sitting posture, flatness on percussion existed at the lower part, extending upward several inches above the pubis. The level of the flatness varied with the position of the body, showing the presence of liquid. Much of the enormous distension, however, appeared to be from tympanites. He was pallid, emaciated, and extremely feeble. The previous history was not ascertained. He stated that he had been under medical treatment, and had been recently salivated. He had little appetite, but much thirst. The urine was abundant, and not albuminous. There was no œdema of the lower extremities. The pulse was not accelerated, but very feeble. Physical exploration furnished no evidence of cardiac disease. The patient failed rapidly, and died on the sixih day after his admission.

On examination after death, the peritoneal sac contained a large bucket full of transparent, yellowish serum. There was no exuded lymph, and the peritoneal membrane was not opaque. The stomach and small intestines were greatly distended with gas. The liver was diminished in size, and its edges blunted. It was hard and resisting, and portions presented a yellowish granulated appearance, the different order of vessels not being distinguishable. The surface was smooth, not nodulated.

The kidneys presented externally and on section a normal appearance. The heart was normal.

Remarks.—The occurrence of ascites in cirrhosis is due to the mechanical obstruction to the passage of blood in the liver from the portal to the hepatic system of veins. Congestion of the portal veins follows, and venous transudation into the peritoneal sac. Clinical observation shows that the occurrence of ascites and its degree are not always proportionate to the amount of hepatic disease. The dropsy may be considerable, or great, with a moderate amount of cirrhosis; and, on the other hand, it is not always great when the liver is much affected. The explanation of this want of correspondence between the lesion and its effects, involves various accessory circumstances; one of which is the relief afforded to the portal circulation by means of anastamosis with the systemic venous system. On this subject, M. Sappey has lately contributed a memoir to the French Academy of Medicine, which is of interest in this connection. The following are the conclusions of M. Sappey, quoted from the *Archives de Médecine*, Avril, 1859.

1. There is no evidence of the persistance of the umbilical vein in the adult, and all the facts which have been considered as proving such persistance, must be regarded as examples of dilatation and hypertrophy of one of the small veins contained in the suspensory ligament of the liver.

2. This small vein, in becoming dilated and hypertrophied, leads to the dilatation and hypertrophy of the veins with which it anastamoses, and thus is the point of departure of a large collateral channel, extending from the sinus of the portal vein to the principal vein of the lower extremity.

3. In this collateral channel the blood flows from above downward, and not from below upward as all authors now and hitherto have taught.

4. This channel embraces sometimes the sub-aponeurotic and sometimes the sub-cutaneous veins of the abdomen.

5. When it embraces the sub-aponeurotic veins, neither varices nor varicose tumors are developed in their tract; but when it embraces the sub-cutaneous veins, one or more of these tumors is always produced.

6. The venous current flowing from the liver toward the crural vein occasions a thrill (*frémissement*), perceptible to

the hand, and a continuous murmur perceived through the stethoscope.

7. Finally, the existence of this current must be considered, in the great majority of cases, as a favorable symptom, since it lessens the liability to ascites, although it points to confirmed and incurable cirrhosis.

CASE 6. *Acute Phthisis. Collapse or Atelectasis of the lower lobe of the left lung. Fatal. Autopsy.*

Franz Ziegler, aged 58, shoemaker, was admitted Jan. 3d, 1859.

He stated that he had had habitual cough for nine years. For the last five years he had felt want of breath on exercise. He had been repeatedly confined to the bed for several days, after, apparently, contracting a cold.

On his admission, he was obliged to keep the bed; the cough was frequent and severe, with considerable mucopurulent expectoration; and the suffering from want of breath was a prominent symptom. The face was pallid and tumefied. There was moderate œdema of the lower extremities. The appetite was tolerable. Pulse, 120.

Physical Signs.—The summit of the left side was depressed. The respiration was abdominal and inferior costal. The respirations were labored, and varied from 40 to 60 per minute. Marked relative dullness on percussion existed over the left scapula and the upper third of the left side in front. In the latter situation the dullness approached to flatness. Dry râles, sonorous and sibilant, were diffused everywhere over the chest; but this did not present a well-marked bronchial respiration from being apparent over the left scapula. At the summit of the left side in front the respiratory murmur was either suppressed, or drowned in the râles. Well-marked bronchophony and the bronchial whisper existed over the left scapula. The sounds of the heart were pure.

The iodide of potassium, grains x, twice daily, was prescribed, with the syrup of morphia, and nutritious diet.

Jan. 13th. The patient died suddenly. He had failed for several days, and on this date he was extremely feeble. In the afternoon he got up to go to the water-closet; fell on the floor, and died almost instantly.

On examination after death, old and very firm pleuritic adhesions existed on both sides. In place of the lower lobe of the left lung there existed a small triangular mass, about two inches in length, and the same in width at the base. On section, it presented the appearance of carnified lung. It did not occur to me to attempt to inflate it before cutting into it. There was no deposit of tubercle in this collapsed lobe. The upper lobe of the lung was contracted and solidified by disseminated miliary tubercles. Slight trepidation was produced by pressure on the lower part of this lobe. The bronchial tubes were moderately dilated. No aggregation of the tubercles into masses, nor softening, nor excavations. The left bronchus was dilated, exceeding the right in caliber by about as much as the right bronchus normally exceeds the left. The volume of the right lung appeared to have been increased, but no enlargement of the cells apparent to the naked eye. The upper lobe of this lung contained numerous miliary tubercles, but not in sufficient abundance to produce palpable solidification. The lower lobe contained a few tubercles—not seen, but felt, when the finger was passed over the incised surfaces. The heart was moderately enlarged, but no valvular lesions. The aorta above the valves was somewhat dilated, and roughened with atheromatous deposit.

Remarks.—This case furnishes an illustration of acute phthisis which is characterized by the deposit of miliary tubercles, or semi-transparent granulations, in great abundance, destroying life by their accumulation, without being aggregated into masses, softening and ending in excavations. These processes of ordinary tuberculosis sometimes take place with great rapidity, giving rise to rapid or galloping consumption, in distinction from acute phthisis. The latter is distinguished by the non-occurrence of tuberculous masses and cavities. It is not easy to determine, from the previous history, when the deposit of tubercles commenced; but that it had been going on for the nine years during which cough had existed, is by no means probable. It was probably a recent event, having been preceded by chronic bronchitis of many years' duration.

The absence of the lower lobe of the left lung, except in a rudimentary state, is a curious feature of the case. Had this lobe never expanded; or had collapse occurred as a result of bronchial obstruction? The latter is, perhaps, the more probable supposition. The want of this lobe would account for the deficiency of breath on exercise, which the patient had experienced for a long time.

CLINICAL LECTURES OF PROFESSOR NELATON.

From notes taken by Marco A. Rojas, M. D., New Orleans.

Erectile Tumors.—*Erectile Tumor of the Eye.*—April 29th, 1857.—Mr. Nelaton presented to-day before his class a child eight years of age, who had a tumor on the internal angle of the left eye. It was of the kind of erectile tumors which are at the same time cutaneous and sub-cutaneous. The beginning of the tumor was a little spot the size of a small bean, which increased from day to day, until it had now reached the size of a lemon. It is sure that if left to itself, the tumor will invade the eyelid; wherefore Prof. Nelaton thinks it advisable to remove it by an operation, previous to which he offered the following remarks in relation to erectile tumors:

Several methods have been practiced to cure this kind of tumors. Of these, there is one most familiar to the profession. This consists in passing through the tumor some needles for the purpose of producing inflammation. This method was first introduced into surgical practice by Lallemand, and was much in favor with the profession. I have seen many of these operations, and I remember one performed by Berard, who introduced fifty needles and allowed them to remain more than three weeks; but in spite of that the cure was not obtained. Then, Berard modified Lallemand's method. Fancying that the failure was caused by the metallic needles, he employed some made of ivory, but with no more favorable result. Then, he made an injection of acid nitrate of mercury through the fistulous opening left by the needles. High inflammation followed this, with gangrene, and at the end of a few days the mass of the tumor was eliminated. The patient was at last cured, but the tumor was replaced by a very troublesome cicatrix. For these reasons it is not advisable to employ this method.

At the same time were published several observations about the cure of erectile tumors by vaccination.

Really, it is a method which gives very good results, but it is of the greatest importance to know how to employ it. It does not consist in taking a lancet and inoculating the pus; no, it is necessary, first of all, to inoculate the pus, preventing at the same time the effusion of blood. For that, it is quite enough to pass through the tumor needles which take with them the vaccine matter, and leaving them there permanently. In this way the effusion of blood does not take place. On a tumor such as the one this child has, and of the same size, it is quite sufficient to put six or eight needles. At the end of a few minutes, when it is estimated that the pus has been absorbed, it is well to take them away. One of the peculiarities of this method is that its action is propagated to a considerable distance, producing intense modification. In the present case, there will result a cicatrix similar to those produced by vaccination. The same result would be obtained with caustics—Vienna paste for instance,—but the cicatrix would give place to an ectropion.

There is another method of employing vaccination in these tumors. This method consists in injecting a vaccine liquid through the fistulous openings, and this I have resorted to twice. The first instance was in a child sent to me by Prof. Dubois, presenting an erectile tumor on the partiod region. The tumor was sub-cutaneous. Up to this time this method had been employed only for the external erectile tumors. Inspired by Berard's remarks, I conceived the idea of injecting through the openings, not a caustic, but a vaccine liquid (of course it is understeod that this method is only applicable to those patients who have not yet been vaccinated). I passed into the tumor six needles (Fig. 1st. *n n n n n n*). At the end of twenty-four hours I took them away, putting in the place some charpie. Eight days afterwards I thought it well to inject through the canals the vaccine liquid, but there was a difficulty, namely, that the liquid ought to be injected without touching the orifices, otherwise it would produce vaccination pustules on each of them, and, consequently, as many cicatrices as pustules. To prevent these evils I took a canula such as those employed for the lacrymal fistula, introduced it through one of the fistulous openings, and through this canula introduced a thread saturated in its middle with vaccine liquid. This thread reached only a portion of the tumor, smaller, of course, than its whole diameter. I did the same thing on the other openings, injecting in this way the liquid without touching the orifices. Although I lost sight of the patient, when the tumor was yet of large size, I was told by Prof. Dubois that the result was most satisfactory, the patient having been quite cured.

I employed the same method in another case of erectile tumor situated on the nose. The result was also very satisfactory.

There is another method, which consists in pushing incandescent needles through the tumor, but this is not generally employed. (In the case under consideration Mr. Nelaton employed the vaccination method. The result was complete, the patient leaving the hospital quite cured, some weeks after the operation.)

Erectile Tumor of the Elbow.—December 16th, 1857.—A girl 17 years old came to the hospital to consult Mr. Nelaton about the results of a fall she had received upon the elbow. She presented near this region a very remarkable instance of erectile tumor. He said: The erectile tumors present a good many varieties. One of the rarest which we will find reported at all by the authors, is that composed of a mixture of erectile tumor and lipoma, that is to say, there is a kind of combination of the two, as has been verified by anatomical dissections. In such cases, if the ligature is employed, it will be seen that the mass produced by this combination begins to decay, giving issue to an oily liquid. At other times, this combination takes place with an organ, the parotid for instance, in such a way that it is impossible to isolate the two tissues, the venous erectile tissue being mixed with the tissue of the parotid.

There are, moreover, erectile tumors of the muscles, which I call interstitial, as the combination has taken place in the interstices of the muscular tissue.

M. Velpeau reports, in one of his books (and I have seen another in Velpeau's wards), a case in which this combination took place in the mammary gland.

There are, also, erectile tumors which are sub-cutaneous. I have seen lately a girl, who was brought to me from Athens by her father, presenting an erectile sub-cutaneous tumor, extending from the knee to the heel. At the same time she had erectile cutaneous and sub-epidermic tumors, which had the shape of vesicles, which bled with great facility. It was very troublesome to the patient, who was very anxious to get rid of it. I thought that, in order to cure this case, it was enough to make deep cauterization with Vienna paste, and afterwards, when hæmorrhage occurred, to cauterize immediately with the perchloride of iron. In such cases it happens that a scar ensues, and at the end, after some applications of the perchloride, the vesicles disappear, and the hæmorrhage ceases. Such was the case with this girl, who became accustomed to cauterize herself, being cured at last of the hæmorrhage, although the large tumor remained. These erectile tumors can give rise to mistakes. I was consulted, some time ago, by a priest who had, below the clavicle a hard tumor, of violet color, of the integuments. Examining the patient, I found that there was another tumor in the fold of the axilla. He was examined by the best surgeons of Paris, who thought that there was encephaloid tumor on the verge of ulceration. Some of them thought that it ought to be removed by an operation which would consist in crossing the pectoralis major by an incision. I was of a different opinion, thinking that it ought not to be removed by any operation, being an erectile venous tumor, which was at that time inflamed, this inflammation producing all the symptoms we saw.

In fact, the treatment employed corroborated my diagnosis. The inflammation, or phlebitis, if it can be so called, was subdued, the patient being cured at the end of several weeks. The venous tumor remained and did not trouble him at all during his life—there being no danger either.

In this instance I was led to properly diagnosticate the tumor, by a circumstance, viz: that the patient was unable to wear suspenders on his trowsers, because when he wore them, there was consequent increase in the size of the tumor, with pain and other sufferings he could not bear. This was quite enough to satisfy me that he interfered with an erectile venous tumor which was inflamed.

(In the case under consideration the patient was treated by the perchloride of iron, which was injected through the erectile tumors she had on the hand and elbow. At the end of a few days, M. Nelaton fancied he found a coagulum, but it was not so. Then, inquired Mr. Nelaton, "where is gone that perchloride injected some days ago? It can go through the heart or some where else, giving rise to a coagulum."

This girl left the wards some weeks afterwards; she was very much improved and she had not yet symptoms of a coagulum in any part of the body.)

SPECIAL SELECTIONS.

[The following report will be read with interest by all who are interested in conservative surgery. Few successful results of this operation are to be found on record; indeed, we can now only call to mind the brilliant result obtained by the late lamented Prof. Picton, who successfully removed a tumor of the scrotum weighing fifty-three pounds.—Eds.]

ELEPHANTIASIS OF THE SCROTUM—OPERATION AND RESULT—WITH REMARKS.

By Haynes Walton, F. R. C. S., Surgeon to St. Mary's and to the Central London Opthalmic Hospitals.

Elephantiasis of the scrotum is so rarely seen in this country, and so few operations have been done for it here, that I venture to bring this short and strictly practical communication before the Profession.

In the early part of the year 1847, a gentleman, twenty-nine years old, who had just arrived from the tropics, called on me with enlargement of the whole scrotum, which was doughy, inelastic, and slightly fissured in three or four places. Although the epithelium was much thickened, the general sensibility was not impaired.

The testes were at the upper part of the tumor. The left seemed healthy; the right was a little enlarged and hardened, the effects of a radical cure for hydrocele that had been accomplished some years ago. The skin at the root of the penis was slightly affected.

The superficial femoral glands on the left side were a little enlarged, and there was a puffiness of the skin in this region. The right groin was quite healthy. Only two years and a half had the disease been noticed. There were occasional sub-acute inflammatory attacks, that seemed to be the growing periods, as the progress was marked on these occasions only.

I recommended an operation. As a matter of course, several opinions were taken, and, so far as I could learn, they did not coincide with my own; and, as some of the surgeons were twice my age, and men of great reputation, it was not to be wondered at that my patient and his friends rejected my advice. Treatment was tried, but the disease progressed, as I learned some years after. Having been overruled by authority, I naturally looked well into the recorded cases of operation for this complaint, and having found that the dangers were those of hæmorrhage and shock, I determined if I ever met with any example equally fitting, according to my views, for an operation—and especially in so early a state, when the causes to be dreaded in a late operation were almost, if not entirely, out of reckoning—I would operate.

On the 3d of September, last year, a still more favorable case came under my treatment, inasmuch as there was no glandular enlargement, and no puffiness in the skin of either groin.

Mr. C., aged forty-one, an athletic government quarantine officer, from Barbadoes, arrived in London to seek advice, and was sent to me. His scrotum was about eight or nine pounds weight. The skin was rough and indurated, and it was redder than in the other instance, but there was the characteristic firm and solid swelling. There was no pain, and no inconvenience beyond that caused by bulk. The integument of the penis was similarly affected. Just four years ago, inflammation appeared at the lower part of the scrotum, and subsiding, left some hardness. Every year there had been several similar attacks, and each had added to the enlargement. Medicines and topical applications had failed in the hands of different practitioners, and it would be a waste of time to enumerate them. The last use of tincture of iodine caused so much suffering, and excited so much inflammation, that no further treatment was allowed, and Mr. C. determined to visit England, in the hope that he might get relieved by surgical operation. I fully explained to my patient that an operation was not devoid of risk, and he assured me that he was prepared to chance an unsuccessful result, rather than submit to the inevitable fate of steady increase of the disease. I also told him that there was just the possibility of my being obliged to remove the testes, to which he assented, if I saw need. Under these circumstances, therefore, I determined to operate, and that at once.

The very evident vascularity of the part, added to the known tendency to hæmorrhage, and the difficulty that is generally experienced in checking it, from the rapidity with which the blood flows from scores of apertures, necessarily made me cautious and thoughtful, and I resolved on a plan which served the double purpose of effectually preventing the possibility of untoward bleeding, and enabled me to get the testes completely out of the way, while I was unrestrained in any operative detail.

With the kind assistance of Mr. Henry Smith, of Caroline street, Mr. Freeman and Mr. Buncombe, of Mile End, I proceeded, on the 30th of September, to operate. Chloroform was used.

The scrotum was raised and pressed on for a few minutes, so as to empty it of as much blood as possible, and then with a long needle, of the sort used by upholsterers, threaded with strong twine, I tied it in small segments close to the trunk, first pushing up the testes so that they were quite above all that I intended to remove—an act that demanded carefulness, from the indistinctness of these organs. Having had some experience in producing strangulation of a part, I well knew that to be effectual much tightness was needed, and this caution was the more necessary, as I intended to cut close to the nooses, when, without such provision the divided surfaces would quickly retract away from them. I removed then as much of the scrotum as I could possibly get away. As each strangulated part was liberated, the vessels were secured, and altogether twenty-two ligatures were used. Some of the vessels were larger than I expected, and a few veins bled so freely, that I tied them. The testes fell down to an incredible length, owing to the very great elongation of the spermatic cords. They were healthy, except that the tunica vaginalis of each was much infiltrated. The after-treatment, including the immediate manner of dealing with the wound, had been duly considered, and I determined that it would be better, to amputate as much of the disease as was possible, and to trust to healing by granulation, rather than to attempt to cover the testes by any of the diseased structure. But I changed my plan, and made an attempt, I should rather say an experiment, that succeeded. I pushed up the testes, and forcibly drew together the divided surfaces, and applied sutures. This caused much strain, more than I thought justifiable from preconceived ideas. I then disected away the thickened integument from the penis. Some prostration followed the operation, and wine and brandy were freely given. There was no secondary hæmorrhage. Contrary to all expectation, the whole wound healed by first intention, all but an inch and a-half in front and that failed, I believe, because I removed the sutures from it too soon. I suspected the existence of clots, and I sought in vain for them. But there was not much gaping, so little that no part of the testes was seen. Ultimate closure was readily effected by granulation. The penis also healed over quickly.

Respecting the pathology, it is evident that sub-acute diffuse inflammation of the integuments produced the organic changes.

The morbid anatomy of elephantiasis has long been made out, and a careful examination enabled me to verify the statement of other observers. When the mass was placed in a basin, the bulk was reduced more than half by the exudation of serum. The epidermis was much thickened, but the true skin particularly so. The connective tissue between the scrotum and testis was greatly hypertrophied and intersected with large areolæ. My patient took leave of me, just six weeks after the operation, quite well. The penis was drawn to the right side and rather constricted in the circumference.

I have much pleasure in closing my paper with a report received on March 21. Mr. C. writes: "My wounds are perfectly well, and the penis is so much better in the hot climate, that the contraction has nearly passed away. I am happy to say that I greatly rejoice at having undergone the operation."

6, Brook street, Hanover square.

CONNECTION BETWEEN THE HEAT OF THE BODY AND THE EXCRETED AMOUNTS OF UREA, CHLORIDE OF SODIUM, AND URINARY WATER DURING A FIT OF AGUE.

A Paper read by Sidney Ridges, Esq., before the Royal Medical and Chirurgical Society.

The author commences his paper by a reference to the observations of Von Baerunsprung, Zimmermann, Michael Wunderlich, and others, on the temperature of the body during ague; and to the observations of Traube and Lockman, Redenbocker, Moos, and Hammond, on the excretion of urea, chloride of sodium, and water, during the fit. He then states that the object of the following paper was to trace out more particularly the connection, if any, between the height of the thermometer and the excreted amount of these substances; and he then describes his method of investigation, and the precautions taken against sources of error. His observations were made on two untreated cases of ague (one of quotidian and one of tertian) in University College Hospital, under the care of Dr. Parkes; and they are recorded in a series of charts and tables, showing the following particulars: 1. The temperature of the body, as judged of by the thermometer in the axilla (after the manner of Wunderlich), every quarter of an hour, for several hours before, during, and after the fit. 2. The hourly excretion of urea before, during, and after the fit, in the first case; and the excretion according to stages, in the second case, as determined by the method of Liebig. 3. The hourly excretion of chloride of sodium and of urinary water during the same periods, in the first case; and the excretion by stages in the second. 4. The quantity of fluid drunk. The following are the results in the first case (quotidian). The temperature of the body commenced to rise from forty-five to ninety minutes before any change was perceived by the patient, and continued to rise during the whole of the cold stage, and during part of the hot; it fell during the latter part of the hot and the whole of the sweating stage. The severity of the fit could be determined by the character of the rise, whether rapid or with oscillations, and by the variations of the temperature during the several stages; but the charts of temperature, and the comments given at length in the paper, must be consulted in order to exhibit this clearly. The urea was found to increase during the fit, as stated by Traube. The increase commenced before the first feelings of cold, and before, indeed, the rise in the thermometer. The maximum increase of urea was at the end of the cold stage, or just at the commencement of the hot (*i. e.* before the temperature reached its highest point), and from this point the amount fell during the hot and sweating stages. There were variations in the amount of urea which closely corresponded to variations in temperature, but often preceded them a little. The amount of increase was considerable (from 200 to 500 per cent.), and was definite—that is, during five successive fits, the amount corresponding to each degree of temperature was the same, so that the temperature might be calculated from the amount of urea, or the reverse. A greater increase corresponded to a single degree at a high than at a low temperature. The excretion of urea was not influenced by the excretion of urinary water. The chloride of sodium was also increased, and varied with the temperature, but in a much less close degree. The increase was very considerable, and was at its maximum at the same period with the urea. The excretion of chloride of sodium was evidently much more closely connected with the excretion of water than in the case of urea. The urinary water was also definitely increased—*i. e.*, a certain quantity for each degree; and this was evidently independent of the fluid drunk. The amount of water drunk in no way influenced the total amount of water excreted. Much more was drunk than was excreted. The author next relates the observations made on the same patient when quinine was given. A scruple being given before the fit, and just as the temperature commenced to rise, delayed the rise for an hour, but had no other effect on the temperature on that day, and none on the urea, chloride of sodium and water. Another scruple being given at night, after the fit, completely cured the patient, as far as subjective symptoms were concerned. On the following day he had no shivering, no warmth, and no sweating, and the temperature remained the whole day quite normal; yet the urea and chloride of sodium increased at the time they would have done had he had a fit. On the next day, the temperature was still normal, but the urea and chloride of sodium still rose during what would have been the fever hours; but the rise on this day was much less than on the day before. The effect of quinine, then, was to dissociate those two phenomena—namely, the temperature on the one hand, and the excretion of urea and of chloride of sodium on the other. The same fact has been noted by Redenbocker. The quinine affected the temperature at once, but the urea and chloride of sodium more slowly. In the second case (of tertian ague) the temperature followed the same laws. The urea, chloride of sodium, and water were determined only during each stage. There was found to be an increase in all three constituents, the increase being greatest during the cold stage. The urea was more than double the amount in the cold stage than in the previous apyrectic hours. In this case charts are also given of the pulse, showing its close correspondence with the temperature. In addition to these cases of ague, the author subjoins one of hectic fever occurring in a phthisical patient of Dr. Walshe. The subjective phenomena were very similar to those of ague, as there was a well-marked cold, hot, and sweating stage. The temperature followed the same rules as in ague, and there was also an increase in the urea and chloride of sodium during the cold and hot stages. There was a difference in this respect, however, that the urea fell before the rise in the temperature commenced, and that its increase afterwards was even less than in ague. It also rose again just at the end of the sweating stage. So that, in spite of the diversity, of course the phenomena would appear to be very similar in ague and hectic fever. The author concludes his paper with a series of conclusions, recapitulating all the results to which his observations have led, and which have been given generally in the above abstract.—*London Med. Times and Gaz.*

EDITORIAL AND MISCELLANEOUS.

A CHAT WITH OUR PATRONS.

After an absence of three months, we find ourself once more in the editorial chair. But we take our seat under circumstances far more agreeable than those which surrounded us at the time of our departure. For twelve long years we had been at hard work, without ever indulging in more than two weeks real relaxation, and we had become physically worn out. Now, we feel that we are infused with new energy, new life, and we enter on our manifold and onerous duties cheerfully and hopefully. Often, during our late travels, has our mind reverted to the Gazette, its patrons and its interests, and as often have we been tempted to contribute to its pages some of the matters medical by which we were surrounded; but we left home, and family, and business with the determination to seek health alone, and duty prompted us to stand by our resolve. Moreover, we knew that we had left our journal in good hands (those of our friend, Dr. A. Peniston), and we felt assured that all would go well. That Dr. P. has more than filled our place, we know all will agree, and certainly our obligations to him are manifold. He has become initiated into the pleasures (!!) of an editorial life: if he is captivated, he is easily pleased. Certainly he has worked hard, and he has laid our patrons, too, under great obligations to him. He has very gracefully laid down the editorial pen, but we shall retain him as one of our ablest contributors.

Health was the great object of our visit the past summer, but in seeking the proper climate for ourself, we determined to extend the field of observation as widely as possible, for the benefit of those who may seek advice at our hands. We are satisfied that change of climate and scene is often more potent for good than all the materia medica, and to have some personal knowledge of the climate of our vast country is a great desideratum.

The vast majority of our people "travel for pleasure," and this they find at some one or more of the great "watering places." But for this so-called pleasure they exchange all the comforts of home. A small and ill-ventilated room, a hard, and often not clean, bed, two or three Windsor chairs, a deal table, and a scant allowance of badly cooked food—these constitute the luxuries of watering place life. Such is the rule, which, however, has its exceptions, and it is for one of these exceptions that the invalid should search. For instance, if he is in the Virginia mountains, he should shun the magnificent and fashionable humbug, called the "Old White Sulphur," and seek the "Sweet Springs," or the "Montgomery White," or some less fashionable place, where he may get a comfortable bed and something like good and wholesome food. If he is at the North, he should travel all around Saratoga, or Newport, etc., etc., for the same purpose. According to our own experience, Niagara is the only exception to the rule, that great and fashionable Northern resorts are only great swindling machines—so far as the invalid is concerned. The individual in health deserves to be swindled if he patronizes them, or he is willing to be swindled for the "pleasure" he derives from being one of the "thousands" who flock thither.

Since the 26th day of June we have traveled about 7,500 miles. We have visited the Virginia Springs, the sea coast of Virginia, the Northern cities and Canada; then, striking westward, we visited Niagara and Buffalo, passed through Canada-West, Michigan and Wisconsin, and then up the Mississippi river to the Falls of St. Anthony. Thence we passed down the river to Dunleith; thence through Illinois to St. Louis, and thence by the river to New Orleans. We have thus had an opportunity for extensive observations, and henceforth our advice to our patients will not be based on mere hearsay.

We will not here enter into detailed descriptions of the various points we have visited, but beg to direct special attention to one portion of our country which, more than all others, merits the patronage of the invalid. We refer to that portion of the new State of Minnesota around the Falls of St. Anthony. Until we reached this point we could have formed no just idea of a delightful summer climate. The far-famed Virginia Springs and all the Northern watering places fell under comparison. Description can impart no idea of the happy sensations of the invalid who breathes the cool and bracing air which comes across those vast prairies from the Rocky Mountains. Seeing by the map that St. Anthony and Montreal are nearly on the same line, we had formed the idea that at the former place we were to meet with stunted grain fields, indifferent vegetables and all the natural phenomena of a Canada climate. But not so: finer wheat, rye, Indian corn, millet, etc., as well as vegetables of every description, we never expect to see; and the whole aspect of the country is an entire contrast to that around Montreal. While the invalid never experiences a temperature high enough to relax the system, the fertile prairies, teeming with the products of the plow, tell him that he is in no sterile icy region. Where all was a wilderness a few years ago, and where the buffalo and the Indian roamed together, is now a civilized country, dotted with beautiful towns, and offering to the traveler all the comfort that he can desire. The city of St Paul alone boasts between 15,000 and

20,000 inhabitants, and the towns of St. Anthony and Minneapolis (only separated by the river) have an aggregate of 8,000. And in these places are to be found hotels which, for elegance and comfort, utterly surprise the visitor. The Winslow House at St. Anthony is not surpassed in this country. True, the table is not spread with the variety and luxuries that are to be found at the New York Hotel, but the fare is good and in profusion, and in many other respects the hotel stands unsurpassed. This much we say to show the reader that in visiting Minnesota, he is not going into a "log cabin region," where "shuck beds and bacon and greens" alone await his weary hours and sharpened appetite. At St. Anthony he can find first class accomodations, and, making this place his head quarters, he can go out amongst the farmers and live as even yet better suits the sick man. The whole country is thickly dotted with deep and clear lakes which abound wlth the finest of fish, and the opportunities for hunting are the finest imaginable. We were there in season for the wild pigeon, just fully fledged, and the pinnated grouse, or prairie chicken, and to say that we enjoyed both the killing and the eating to the fullest extent is not saying half that we even now feel. And it is this very unrivalled opportunity for fishing and hunting which would give Minnesota the precedence over every other place we have visited, even if the climate was not so fine. Such is the life for the invalid who has strength sufficient to pursue it, and in Minnesota, we have day after day, lived on the prairies and the lakes without ever feeling a disagreeable sun's ray or experiencing the sensation of fatigue. We have caught as many fish and killed as much game in the South, but never without being tired out, whilst there we have felt every evening sorry that the day was not longer. The rudest bed has always found us ready to sleep, but we never laid our *weary* limbs at length. The country is new, but the march of civilization is wonderful, and althouth 2,000 miles away from our home, and in the "far west," we felt that we were as much in the world as if in one of the eastern cities; for the reader must be told that St. Anthony is as accessible as New York city. For the traveler leaving New Orleans, there are two routes—one by river all the way, making one change of boats at St. Louis, the other by railroad to Dunlieth or Prairie du Chien, and thence by fine packets to St. Paul. The latter route will not consume more than five days allowing ample time to rest by the way. More than this, he who wishes to travel east at any time is in four days of New York city, and all by the finest of railroads and steam packets.

With a climate, then, having no equal either south or east, with all the comforts, and even the luxuries of life, and with unrivalled opportunities for indulging in the most healthful exercise, Minnesota is eminently the place to which southern invalids should resort. During our sojourn there we saw not one disappointed spirit, and we venture to say that no reasonable man or woman will be disappointed who visits the country in search of health. Not that we believe the subject of organic disease of vital organs is to be restored by a visit thither, but in all cases where change of climate, scene and mode of life are indicated as really curative, we believe Minnesota offers unrivalled inducements.

When we left home we resolved to think as little of medical matters as possible; rest from our professional labors was all essential for us, and, consequently, in our rambles we have had little intercourse with medical men. In Philadelphia we spent a short time, merely to shake hands once more with our honored preceptor, Dr. W. W. Gerhard, and some of our old fellow students, as Drs. J. J. Leick, Ellwood, Wilson, and others. Our visit was made at a time when "everybody is out of town," consequently we missed seeing some of those we once knew so well. This disappointment was in great degree soothed however by the warm reception we met at the hands of those named. We shall ever regret that our traveling arrangements were such as to preclude our having more than a passing glimpse at men and things. We took a peep at the old Pennsylvania Hospital and our alma mater, the University of Pennsylvania, and, so little changed are things, we asked ourself if it was possible that twelve long years had elapsed since we sat there a student of the healing art. In New York, too, through the unceasing attentions of Professors Flint, senior and junior, we had a glance at the schools and hospitals. To Prof. Carnochan we shall ever feel ourself indebted for a most delightful ride out to the extensive hospitals on Ward's Island, to which he is Chief Physician and Surgeon. But in this city, too, we were reminded of our duty to our poor physical self, and we shunned medicine and its lions as far as we could with decency; consequently we have no portraits to draw, no characters to delineate. At Buffalo we could have lingered amongst our brethren with more than pleasure, but we could only stay a day; yet we shall ever look back with delight to our dining with Dr. Wm. Mason and Profs. Hamilton, White and Eastman. All we ask is that we may some day have the privilege of reciprocating the cordial hospitality of these gentlemen.

With a few exceptions, wherever we found hospitals or medical schools we visited them, for it was our earnest desire to compare the same with our own institutions at home. We have seen much to admire, yet we have sometimes been sadly disappointed. It is neither our wish nor our province to particularize, but we feel ourself at full liberty to say that, in all candor, our observations have only tended, at every step, to strengthen our conviction that, as a resort for the student of medicine, New Orleans stands unrivalled. To the eyes and ears of some no doubt this will appear altogether "provincial," but we have seen no schools better, and few as well, supplied with all that pertains to complete organization, and nowhere have we seen equal advantages for clinical observation. Nor do we say this by way of disparagement of others. On the contrary, the remark is prompted by the pride we feel in knowing that home is the place for our own young men, and we now reiterate the opinion we have more than once advanced, that the annual exodus of our southern students will year by year diminish, and this city will be the medical centre of the south.

DELIVERY FOR THE RELIEF OF PUERPERAL CONVULSIONS.—In the Chicago Medical Journal we notice the report of a case of puerperal convulsions continuing for thirteen hours, "to the number of twenty, coma and stertorous breathing filling up the intervals." Calomel, etc., were given, but without relief, and the patient's pulse had reached 216 in the minute, with cessation of uterine action. Delivery was now accomplished, and there were no convulsions thereafter. The patient slowly recovered.

The more we see and read of these cases, the more do we wonder that *delivery* is not made the first great object of the practitioner. That it is not, is evident from what transpires around us and what we read. When delivery is made the object of the practitioner, the mortality from puerperal convulsions will vastly diminish. As matters stand, woman derives not half the benefit at our hands to which she is entitled.

RADICAL CURE OF REDUCIBLE INGUINAL HERNIA.—The Nashville Medical Record for October, under the head of "Selected papers," says of Wützer's operation: "The first operation performed in the Southwest was by Prof. May, in Nashville, last November, before the class of Shelby Medical College. Since that time it has been frequently performed by Prof. May, Mr. Newman, and myself, with very satisfactory success."

It affords us great pleasure to see that this valuable operation is thus finding advocates throughout our country, but we beg leave to correct an error into which our esteemed cotemporary has fallen in relation to the first operation performed in the Southwest. If Louisiana is classed amongst the Southwestern States, then our colleague and friend, Dr. Samuel Choppin, is fully entitled to all the merit of having introduced the operation into practice, for, by reference to vol. 5 of the New Orleans *Medical News and Hospital Gazette*, it will be seen that he published the result of six operations in September, 1858,—his first operation having been performed in May, 1858. More than this, our acquaintance with the periodical literature of the day is necessarily quite extensive, and, so far as our observation extends, we believe Dr. C. was the first to operate in this country.

Did we not firmly believe that this operation (however various the so-called "modifications") is destined to the highest position in modern surgery, and that he who introduced it into this country will receive the grateful thanks of the profession, we should not have undertaken the above correction.

Just after writing the above, we took up the *Medical Times and Gazette*, and there we find a tabular report, by Redform Davies, Surgeon to the Birmingham Workhouse Infirmary, of thirty cases of hernia operated on by Wützer's method (using what he called his "improved instrument") of which twenty-seven were successful, one was a failure (on account of small pox supervening), and two were successful in part—the cure being completed by "a process of invagination by wires." He who asks for more satisfactory results than these is hard to please.

Typhoid Flux.—On our return home we found several letters from patrons, making inquiries in relation to a disease with the above name, which is said to be prevailing in portions of Mississippi, and is almost wholly unmanageable. All wish to know what plan of treatment to pursue. Personally, we are unacquainted with the disease, and we know of no one whose experience is more ample. But we are ever ready to serve our patrons to the fullest extent possible, and we hereby offer a reward of fifty dollars for the best essay on the subject, giving a full account of the topography of the region in which it prevailed, the circumstances under which it appeared, its progress, the most successful mode of treatment, and the statistical results of the same—all to be based on actual observation. And if each contributor will enclose his name sealed in a separate envelope, we promise only to open that envelope which is attached to the essay we have deemed best after the most careful perusal. Of course we reserve to ourself the right to reject all contributions, in case we think they do not meet the wants of our patrons, viz: that they do not point to some rational mode of combating the disease.

It is useless to say that our motive is the very best, and we earnestly hope to meet with encouragement at the hands of contributors. From all those who do not feel disposed to contribute for our humble prize, we beg of them the mite of their experience with the terrible disease, whether good or bad, for from a general contribution of this sort some proper head may be enabled to solve the problem.

Miasmatic Hæmaturia.—We apply the foregoing term to a most interesting form of disease which has made its appearance in the South. If the reader will look back into our pages a few months, he will find a translation (by Dr. I. F. Grall) of a case reported to the medical journal at Havana. This is the first item we have had on the subject, until a very intelligent practitioner from the banks of the middle Mississippi river told us this summer of having seen several cases during the past year. He lives in a region where intermittents predominate, and he says that the only cure for the disease is quinine—in other words that the Hæmaturia is but a masked, although grave, form of intermittent disease. If any of our readers have a particle of experience on this subject, will they not contribute the same to our pages?

Value of Scientific Services.—From the late number of the New York Monthly Review, etc., we learn that Professor Doremus has received $3,000 for his chemical analysis of the two bodies in the Stephen's case, besides $800 for new apparatus. We are glad to see that there is one corporation which places some value on the services of its scientific men.

By the by, if we may be allowed something of a comparison between great and small things, we receive a great many letters from medical gentlemen detailing interesting cases, and asking advice and opinions—and all without even a stamp to pay postage! Now, if there is anything we do cheerfully, it is to render our humble professional services gratuitously to the poor; but if the individual receiving the benefit of our advice is "able to pay," we think we have a right to expect "an inclosure." The laborer is worthy of his hire, and it is the duty of medical men to keep this truism always in mind.

YELLOW FEVER IN NEW ORLEANS.—Most of our readers have, no doubt, been informed by the papers of the appearance of yellow fever in our city this season. About three weeks ago it made its appearance here, but apparently too late to become epidemic. Our citizens have flocked back to the city with their families with perfect confidence, and the result has not disappointed us. Satisfied of its sporadic nature, we brought our own family back on the first of October; which we should certainly not have done had we apprehended the least danger. So far, we have yet to hear of a case of the disease amongst what are called "the better classes," it appearing to almost wholly limit itself to the newly arrived laboring people, who are not only exposed to all the vicissitudes of the climate, but live in the filthiest hovels imaginable.

But, in our next number, we will give the *history* of the fever of this season, which, we are rather disposed to think, will tend to upset some of the pet theories held on the subject.

PROF. FLINT'S CLINICAL REPORTS.—In the present number the reader will find the last of the series of clinical reports of cases treated in the Charity Hospital by Prof. Austin Flint, during the lecture season of the New Orleans School of Medicine for 1858–'59. Very frequently, since we have been the editor of this journal, our patrons have urged us to publish "Hospital reports," as illustrative of the results of treatment of our Southern diseases, and as often have we had to regret the paucity of such contributions to our pages. But for several months past all who read must have been both highly entertained and instructed with the complete reports above referred to, and we trust that henceforth we shall have no lack of matter of this kind. There are greater obstacles lying in the way of procuring these reports than those not immediately on the ground can well imagine. First, great industry is required of the reporter, and while nearly every one is ready and willing to do any amount of work which will insure the return of the "almighty dollar," comparatively few are willing to work for "glory." Each man seems wholly oblivious of the fact, that to the unceasing labors of his predecessors is he wholly indebted for the knowledge he possesses, and that he who walks the paths of science without holding above his head his own humble taper, is but obscuring the vision of the zealous traveller. Again, clinical reports, to be valuable, must be authentic. Facts must be recorded first, and theory must ever be subservient. A single deviation from this rule vitiates the report of a case, and to the searcher for truth it is devoid of both interest and value. It matters not whether the record is wilfully or accidentally vitiated; once inaccury is demonstrable, the report is but trash in printer's ink.

The reports of Prof. Flint show for themselves that his industry is without limit; and all who know him know, too, that with him medical facts are priceless jewels, without which no real system of rational medicine could be established and maintained. He is again at work in the great Charity Hospital, and his pen is ever busy with the record of all he sees.

PROFESSORSS FLINT AND FENNER.—Just as our last editorial lines are going to the press, in come our friends and colleagues, Drs. Flint and Fenner, both well and hearty, and their faces radiant with smiles. The former has been "summering" at the North, the latter has made the tour of Europe. Both are ready, indeed eager, for the lecture campaign, and to-morrow morning they enter on duty at the Charity Hospital. They are able to work, and they intend to teach clinical medicine as it should be taught.

Appropos: Students of medicine are coming in very early this season, our city being healthy, and our colleges are promised larger classes than they have ever yet had.

BOOKS RECEIVED.

A Practical Treatise on the Diagnosis, Pathology, and Treatment of Diseases of the Heart. By AUSTIN FLINT, M.D., Professor of Clinical Medicine, etc., in the New Orleans School of Medicine, Visiting Physician to the New Orleans Charity Hospital, etc, etc., etc. Philadelphia: Blanchard & Lea. 1859.

With more than pleasure do we hail the advent of this work, for it fills a wide gap on the list of text-books for our schools, and is, for the practitioner, the most valuable practical work of its kind. It has been on our table but a few days, and of course we have not been able to study its pages as closely as would be demanded if we attempted a review; but in every page we have read we find accuracy of description, the strongest evidence of familiarity with the subjects discussed, and an easy and elegant mode of expression which must captivate the reader. We are satisfied that the work is complete, and we cordially recommend it to our readers—though we well know that a book from the hands of Prof. Austin Flint will at once command the attention of the profession.

A System of Surgery, Pathological, Diagnostic, Therapeutic, and Operative. By SAMUEL D. GROSS, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia, etc. etc. Illustrated by nine hundred and thirty-six engravings. In two volumes. Philadelphia: Blanchard & Lea. 1859.

This is, also, a new work just laid on our table. We have been unable to do more than glance at its pages (2400 in number), but it seems to be a complete treatise on Surgery. The name of its author is sufficient guaranty that it will command the attention of the profession, to whose libraries it will be a valuable acquisition. As a text-book, however, it is far too massive. We hope at some future time to give a more extended notice of this work.

Pathological and Practical Observations on Diseases of the Alimentary Canal, Œsophagus, Stomach, Cæcum, and Intestines. By S. O. Habershon, M.D., London, etc. etc. Philadelphia: Blanchard & Lea. 1859..

This is another one of the valuable works from abroad being issued by the foregoing enterprising publishers. So far as we have looked into it, we are highly pleased, and have no doubt it will prove acceptable to the reader.

An Introduction to Practical Pharmacy: designed as a text-book for the Student, and as a guide for the Physician and Pharmaceutist. With many Formulas and Prescriptions. By Edward Parrish, Graduate in Pharmacy, etc. etc. Second edition, greatly enlarged and improved. Philadelphia: Blanchard & Lea. 1859.

We have before spoken favorably of this work, and of this edition we have only to say that we think it the best book of its kind extant. We would not be without it.

List of Payments to October 25th, 1859.—Drs. Anfoux, vols. 4, 5, 6, $15; Ed. Landry, vol. 6, $5; G. A. Nott, vol. 6, $5; T. O. Starke, vol. 6, $5; W. S. Miller, vol. 4, $5; J. B. Cottman, vol. 6, $5; W. R. Ulrick, vol. 6, $5; H. J. Means, vol. 6, $5; Maas, vol. 6, $5; W. Burnett, Esq., vols. 5, 6, $10; Dr. D. DeBlanc, vols. 3, 4, 5, 6, $20; M. Schuppert, vol. 5, $5; Ridgill, vol. 6, $5; S. Van Allen, vol. 6, $5; Byrne, Vance & Co., vols. 5, 6, $10; R. B. Shields, vols. 5, 6, $10; R. B. Baker, vols. 5, 6, $10; A. F. Wood, vol. 6, $5; J. M. McLendon, ½ vol. 6, $2 50; J. Wilson, vols. 4, 5, 6, $15; H. Hays, vol. 6, $5; R. C.

Bethea, vol. ending October, 1860, $5 ; M. T. W. Christian, vol. ending October, 1860, $5.

A word with our delinquent patrons. The above is all the money we have received since June last, and we are now indebted to our printer. No more flourishing times have ever been known ; cotton and sugar are both selling well, and there is no excuse for not paying us. Gentlemen, "we pause for a reply."

EXCERPTA.

Failure of Homœopathic Vaccination—Letter from Dr. Druitt—*To the Editor of the Medical Times and Gazette.*—Sir : Last week I vaccinated two children, aged respectively three and one years, who were born in New Zealand, and have just arrived in this country. The point of interest is, that these children were vaccinated homœopathically at their place of birth ; which operation consisted in making them swallow some globules which were alleged to contain vaccine matter. They were afterwards inoculated with some matter said to be taken from a cow, without any effect ; and the failure of this operation was assumed to be a proof that the previous swallowing of the globules had rendered them proof against any further dose of the vaccine poison.

This theory was set at nought, however, by the fact, that my vaccination produced the most perfect vesicles ; thus showing that the children were utterly unprotected from that poison, and from small-pox.

I have thought it worth while to make this the subject of a short communication to you, to show, as a matter of fact, the worthlessness of this homœopathic practice. On what experimental evidence, such a proceeding has been adopted, I know not; but unless there is such evidence in existence (which I do not believe), the persons who resort to it ought to be punished for fraud.

It is worth noticing, too, that every eruption in the cow is not cow-pox; and that, as a general rule, it is safest to get the vaccine matter from a healthy child, than to resort to the dairy.

I am, etc., R. Druitt.

37, Hertford-street, W. August 22.

Dr. Tyler Smith deposed that excessive vomiting was a common disorder of pregnancy, which sometimes continued in defiance of all remedies, until it ended fatally. The death in these cases, was caused by exhaustion, in fact, by starvation. Diarrhœa was sometimes produced by the irritation of the gravid uterus, and pregnant women were liable to dysentery and cholera. It usually happened that abortion was produced by any serious affection of the bowels during pregnancy. He had been consulted in four cases in which the vomiting of pregnancy resulted in death. Heartburn was a very common disorder of the pregnant state, and the amount of acid secreted by the stomach in such cases, was sometimes enormous. Excessive vomiting was very likely to occur in a woman pregnant for the first time at mature age, of bilious temperament, and the subject of uterine disorder, for which an injection of nitrate of silver would be used. Menstruation was not uncommon in the first two or three months, of gestation, especially in patients affected with uterine disease. The presence of menstruation would not alone have led him to disbelieve in the existence of pregnancy. He should have suspected it and made the necessary examination, in such a case as that of Miss Bankes. The treatment recognized by the first obstetricians of this and other countries, was to produce abortion as soon as dangerous symptoms set in. In some of the cases he had seen, the stomach retained food for a few days before death. This was the case in the history of the celebrated Charlotte Brontë, who died after vomiting incessantly for six weeks, during pregnancy. The disorder often commenced immediately after impregnation. Dr. Paul Dubois, who had seen twenty fatal cases of vomiting during pregnancy in thirteen years, expressly notices a morbid expression of the features, as one of the symptoms of danger, calling for the induction of abortion. During the last two or three years, especially since the prevalence of diphtheria, he had frequently found pregnant women, and lying-in patients, affected with an aphthous condition of the mouth and throat. *Dr. Tyler Smith's testimony in case of Dr. Smethurst.*

ANTIDOTE TO STRYCHNINE.—Dr. Bewley, wishing to kill a mangy cur, and having read in Magendie's "Report on Strychnia," that the sixteenth of a grain will kill the largest dog, determined to make sure of this very little animal by giving it about half a grain. But either Magendie's statement was incorrect, or the drug was adulterated, for at the end of ten minutes the dog, though suffering frightfully, was not dead. Dr. Bewley resolved to put him out of his misery at once and accordingly mixed half a drachm of prussic acid with a little milk and put it under the dog's snout, he lapped the milk with avidity, and in less than a minute vomited, got upon his legs, ran away, and recovered.—*Literary Gazette.*

Valuable Surgical Discovery.—*Paris, July 28th,* 1859. A medical discovery of much value, destined to effect a great amelioration in the treatment of ulcers, abscesses, flesh wounds, etc., has lately been made by two former *internes* or house surgeons of the Hospice de la Charité, and by them generously offered to the world without fee or reward. At the last sitting of the Academy of Science M. Velpeau demanded permission to make an important communication, and announced that the two young practitioners in question, Messrs. Crome and Demeaux, had paid him a visit for the purpose of presenting to his notice their discovery and explaining to him its results. Messrs. Crome and Demeaux have found a process for the complete and instantaneous disinfection of animal matter. The action of the disinfecting agent arrests the progress of decomposition, and effectually prevents the generation of insects. The substance, prepared for use, costs here about one franc for a hundred pounds, and the expense in America would probably be still less. The following is the formula, as given by the inventors themselves:

Plaster of commerce, reduced to a fine powder, 100 parts; coal tar, 1 to 3 parts. The mixture of the two substances is effected with ease by the aid of a mortar, or by any other appropriate mechanical means. The application of this composition to the dressing of sores or wounds requires a particular preparation. A certain quantity of the powder, prepared according to the formula, is diluted with olive oil, to the consistency of a paste or ointment. This species of paste or salve is of a dark brown color, has a slightly bituminous odor, and may be kept in a closed jar for an indefinite period. The oil unites the powder without dissolving it, and the composition has the property of absorbing infectious liquids the instant it is applied to the sore which produces them. The application may be mediate or immediate. In the latter case, that is to say, placing the composition directly in contact with the sore, no pain whatever is produced: on the contrary, the salve has a detersive action, cleanses the sore, and favors circulation.

In the course of his remarks, M. Velpeau mentioned the case of a patient at the Charité, to whom the new process had been applied, with perfect success. This person was afflicted with a frightful abscess in the thigh, from which exuded a purulent matter of a most infectious odor, rendering the operation of the surgeon both painful and difficult. This matter, mixed with a powder held in readiness by the two experimentalists, was disinfected in one minute, touched with impunity by the spectators, and applied beneath their noses without leaving a trace of unpleasant odor.

As has been seen, the elements of this composition are of the simplest character; and though intelligence of the discovery could not have reached the medical faculty of the United States in advance of this letter, your own surgeons will doubtless receive, by the same mail which carries this, every corroborating particular. My desire is to make known the event throughout our country, and I sincerely hope this paragraph may be widely copied by your exchanges. As M. Velpeau himself observed at the close of his observations before the Academy, too much publicity can not be given to so valuable a discovery, as well as to the disinterestedness of its authors. In their own report, Messrs. Crome and Demeaux state that the composition may be applied in the form of a poultice, or on cotton, and laid on the wound. They demonstrate that their mode of dressing possesses the double properties of disinfecting morbid products, and of absorbing their liquids. This last circumstance entirely obviates the necessity of lint—which is one of the most important features of the discovery.—*N. Y. Express* and *Atlanta Journal.*

REPORT OF CASES—*Poisoning by Ladanum.*—Prof. Comegys stated that, a short time since, he received a call in the night to attend upon a person who had swallowed a large quantity of laudanum. As he was unable to go, he sent a prescription for some sulphate of zinc to be given immediately. On attending in the morning he found the patient in a death-like insensibility, surface cold and livid, and the respiration scarcely more than five in a minute. On auscultation he found the bronchiæ full of râles. As the stomach had been previously emptied by vomiting, and more than four hours having elapsed since the taking of the poison, he considered that the only hope of preserving life was in artificial respiration, which he accordingly commenced, and which in a short time was followed by marked benefit; the râles in the bronchiæ becoming less, and the surface assuming a less livid appearance.

At this stage it was proposed by a physician who had been called in consultation to use the stomach pump. Although he himself had no hope of deriving any benefit from it, he nevertheless consented. On employing it his expectations were fully confirmed, for there was not even a smell of opium in the fluid drawn from the stomach.

After the operation, which rendered the patient much worse, instead of relieving him, artificial respiration was again instituted, followed soon by benefit, and kept up for nine hours, when the narcotism became relieved.

Instead of employing Marshall Hall's method of producing artificial respiration, which he found too inconvenient, he had two persons engaged in alternately compressing and relaxing the parieties of the sides of the chest with their hands.

Immediately after the recovery of the patient from the poisoning, he was seized with delirium tremens in its worst form. He prescribed for him one drachm of tincture of opium every hour until he slept, after which he soon recovered.—*Cin. Lancet and Observer.*

PUERPERAL CONVULSIONS SUCCESSFULLY TREATED BY CROTON OIL SUPPOSITORIES.—*Letter from Mr. Overton.*—Puerperal convulsions are usually so alarmingly dangerous, and cause so much anxiety, both to relatives and friends—ay, and to the medical attendant, at the same time—and are often so rebellious to all treatment, that I trust you will deem the two following cases, extracted from my note-book, worthy of insertion in your columns.

CASE 1.—Mrs. R., aged twenty-four, married about two years. A miscarriage took place six months after marriage, when she suffered considerably from nervous excitement, which, however, soon yielded to appropriate treatment. She was again pregnant in September, 1858, and enjoyed good health till February, 1859, when I received a summons to visit her immediately. I found her suffering from general anasarca, with excruciating pain in the head, restlessness, vomiting, and febrile symptoms. Upon the whole, I did not like the appearance of those symptoms. I prescribed saline aperients, with alteratives, etc.; cold applications to the head. The symptoms did not yield to this treatment: constipation gave some trouble.

March 15.—I was again sent for in great haste; the husband stating that his wife was in a fit, and all feared she was dying. I was soon with her, and found her suffering from epileptiform puerperal convulsions, frothy blood issuing from her mouth, and there were clonic spasms present. I at once abstracted blood from the arm, to about thirty ounces, put six to eight grains of calomel on her tongue, administered an enema of senna, etc., and applied a blister to the nape of the neck. These, combined with cold applications, produced little or no other effect than that of mitigating the acute pain in the head, between the convulsive paroxysms, which paroxysms became frequent. The patient having had no relief from the bowels, I deemed it advisable to mix six drops of croton oil with lard, in the form of a suppository, and so use it. This produced tenesmus, with a sense of smarting, burning heat in the lower bowel; but relief followed, and a copious watery evacuation almost immediately ensued. The patient had no more convulsions. Upon examination, I found no signs of on-coming labor, nor did the slightest chance of producing it present itself.

16th.—On my visit this morning, I found Mrs. R. calm, and free from convulsive symptoms; the anasarca had disappeared; micturition normal; bowels relieved (largely) four times; os uteri in the same state as before.

17th.—I found her dressed, and sitting by the fire in a lower room.

24th.—I was again sent for; and this time I found her in labor, the os uteri fully dilated, and the head presenting. Fearing a recurrence of the convulsions, I turned the child, and delivered her of a still-born, putrid child.

25th.—I found her quiet and comfortable, she had passed a good night, and from that period she went on well without one unfavorable symptom.

Case 2.—*Puerperal Convulsions; recovery; subsequent death from swallowing a row of front false teeth.*—February 18.—Anna F., aged twenty-two, a country servant, primipara, unmarried, six months advanced in pregnancy. The man to whom she was engaged to be married left the neighborhood, and married another woman. This event produced great despondency, and on her way home to see her mother, she was seized with convulsions about every ten minutes. At this time she lost four front teeth, fixed on a silver plate; they could not be found. She had swallowed them. I was sent for, and found her suffering from puerperal convulsions. Blood issued from her mouth; the tongue bitten severely; clonic spasms; head cool; pulse small and compressible; micturition scanty; bowels not open. Upon examination, I found the os uteri high up in the pelvis contracted. I introduced the catheter, and some urine came away. I then administered an enema of castor oil and ol. terebinth, and put 10 grs. of calomel on her tongue. I waited two hours; but no amendment was perceptible. I now ordered 8 drops of croton oil to be rubbed into some cerate, and so passed into the rectum. In a few minutes, she complained of great tenesmus and smarting pain in the bowels. Twelve large watery evacuations followed. No more convulsions. I enjoined perfect quiet, and left her.

19th.—Found her better in every respect. No return of convulsions; she complained only of some soreness in the throat; but there was no dyspnœa.

20th.—I was sent for in the night; natural labor was going rapidly on; a large quantity of liq. amnii was discharged, and in a short time she gave birth to a dead child.

21st.—A good night; no pain in the head; lochia natural; urine had been passed; pulse good; tongue moist, but injured during the convulsions. All went on remarkably well till the tenth day, when, as she was sitting up in the bed drinking a cup of tea, and talking cheerfully with her mother, she suddenly called for a basin; vomited a large quantity of blood, sank back on her pillow, and expired.

The cause of death was evidently from the false teeth, or some portion of the metallic fastening having penetrated some large vessel. No post-mortem inspection could be obtained.—*Medical Times and Gazette, and Southern Medical and Surgical Journal.*

THE FOOD OF HYSTERICS.—M. Sales-Girons says that he has lately seen in the Pyrenees, at Pierrefitte, a young woman, eighteen years old, very thin, who has not been able to stand for nine months. Three or four times she has been seized with syncope during an hour or two. Every evening at eight o'clock, she falls off into a profound sleep, without any convulsive movements. Her menses have ceased. For three months she has only eat one apple during the day, and during this time has passed no evacuation. All treatment has hitherto failed to alter her condition. M. Briene de Boismont hereon remarks, that defective alimentation is a thing common enough in young hysterical persons and lunatics: He knew a young female, who, during two months, took only two spoonfuls of soup a day. It is not at all uncommon for hysterical patients to have a motion only every two months!

SYRUP OF COFFEE FOR WHOOPING COUGH.—When whooping cough has resisted the agents most ordinarily used, the following syrup, which is the formula given by M. Delahaye, slightly modified, will be used with full success. We have experimented very often, says Dr. Courbassier, in the localities where whooping cough appears each year with an epidemic character, and it has rarely failed us. Here is the mode of its preparation:

Take eight ounces of Mocha or Martinique coffee, slightly browned, in powder; treat by displacement with boiling water, so as to obtain sixteen ounces of infusion.

Dissolve in this liquid, alcoholic extract of belladonna, alcoholic extract of ipecac, of each ʒ1¼; alcoholic extract of chinchona, gr. xxxvj; add sugar ℥xvj. Digest on a water bath, and filter.

The dose for children of three or four years is a tablespoonful repeated three times a day. Under this age, the dose should be reduced one-half.—*Revue de Therapeutique, and Southern Medical and Surgical Journal.*

ITCHING OF THE ANUS.—There are few things more distressing and troublesome. Use the following ointment: Glycerine, one ounce; purified tar, half a drachm; and with the aid of heat, powdered starch, half an ounce. This makes an ointment of thin consistence, and easily spread. It dries up excoriations, checks exhalation, and dissipates slight cutaneous phlegmasiæ. Another preparation of pitch is the following: Cod-liver oil, two parts; oil of pitch, one part; used for itching and excoriations, as the other. (M. Gilbert, p. 185.—*Braithwaite's Retro.*

VEGETATION OF THE GENITAL ORGANS—CHROMIC ACID.—*By O. D. Palmer, M. D., Zelienople, Pa.*—CASE.—C., 23 years of age, of a good constitution, never having been diseased, became pregnant for the first time toward the end of October, 1856. About the same time she was taken with an abundant blennorhagic discharge. Having arrived at the fourth month of gestation, she experienced a sense of heat and suffering in the genital organs. This painful sensation was produced by the presence of numerous prominences in the vagina, which had replaced the very copious and extremely fœtid purulent discharge. Careful cleanliness, injections, and baths, procured no ease. Two months passed, during which the disease was making rapid progress.

C. presented herself at the hospital, where she was admitted on the 30th of April, in the sixth month of her pregnancy. It was ascertained that over the labia majora and minora, the vaginal canal, and even the cervix uteri, was a growth of excrescences of considerable size, and in great number. The most voluminous, as large as the fist, projected outside of the vagina. Of these vegetations some were with pedicles, others were sessile; their tints were reddish, their appearance vascular. They were for the most part divided and subdivided, forming ramifications, which in their aspect offered some analogy to the corymb of the millifolium. In the vagina these excrescences had acquired such dimensions, such a development, as to fill all the cavity, and not to permit, without the greatest difficulty, the introduction of the speculum.

In searching for the cause of these vegetations, it was impossible to recognize for them a syphilitic origin. The woman had never had chancres. An attentive examination of the genital parts did not discover any ulceration. There existed no engorgement of the inguinal or sub-occipital glands, no squamous eruption.

In such a state of things we could not but foresee great difficulty at the time of accouchement. It was, then, very important to find means to destroy this obstacle. For this end, M. Rousset applied, first, crayons of nitrate of silver, then the nitric oxide of mercury. This last means, continued during twenty-five days, with much care, caused very smart pain. Like the preceding, it was not followed by any advantageous effects. Tincture of iodine had no good result.

On the 6th of July, after all these failures, Prof. Rousset had recourse to the use of *chromic acid*. He made application of a solution prepared as follows: R. Chromic acid, 1 part; aquæ distil., 3 parts. By the employment of a pencil, each excrescence was separately washed with this liquid, having care not to touch the mucous membrane that surrounded it. The patient experienced immediately, in the part touched by the solution, a sensation of smarting and pain, which was calmed again directly. Redness was manifested, a little swelling, in short a slight inflammation, which was terminated by the formation of pus. Some few washings with Goulard's water, and the use of dry lint, constituted the whole treatment. In proportion as suppuration was established, the excrescences were detached, disappearing, and leaving in their place a reddish surface, in some points excoriated, in others ulcerated, very superficially. The cicatrization was regularly and uniformly established.

July 20th, the cure was complete; the cervix uteri, the labia majora and minora, and the vagina, were entirely freed from these adventitious productions, and offered an aspect which was altogether normal.

On the 26th, accouchement took place without any accident. The child, of the masculine gender, was perfectly formed, and afforded no traces on its body that could cause the mother to be suspected of any affection of a specific nature.

The chromic acid has been extolled, these few years past, as a caustic, both by Dr. Keller, of Germany, and by Dr. Marshall, of London, for destroying vegetations developed on the genital parts. Dr. Marshall uses the acid in solution. Dr. Keller applies it in the form of paste. Whatever process is adopted, this caustic is easily managed; its action is at the same time very rapid, little painful, and thorough. We have a right to conclude, then, from this case, that in these excrescences the chromic acid is a powerful caustic, and preferable to others that have been hitherto employed. *Caussade, of the School of Bordeaux, and Boston Medical and Surgical Journal.*

TREPHINING FOR EPILEPSY AND INSANITY.—This operation was performed on a man, thirty years of age, affected with epilepsy and some mental derangement for about four months. The point chosen was the left side of the occiput below the protuberance, the seat of a tumor which had existed for many years, and caused an absorption of the bone and a roughening of its surface. The two tables at the point of the operation were found consolidated and of an ivory hardness, and the skull of but half its natural thickness. The dura mater was vascular and adherent to the pia mater. The patient, who had been under the advice of Dr. Chambers, of Charleston, Coles Co., Ill., returned home three weeks after the operation, very quiet, and much improved in his health. If kept from the exciting causes of insanity, there can be little doubt of his entire recovery.

We have notes of five other cases in which this operation was performed for epilepsy, accompanied by more or less alteration of the mental faculties.

The first of these was that of a young man, John Ladrigan, cut upon the head at two points by an axe in the forests of Wisconsin. One wound extended from the median line, at the junction of the coronal and sagittal sutures, to the left side three inches. The edge of the axe penetrated the substance of the brain deeply, portions of which escaped. The other cut, also on the left side, followed the line of junction of the parietal and occipital bones, and was as deep and as long as the other. At each a large piece of bone was partially separated, one edge passing upon the brain, and the other rising above the surface of the cranium.

This man stated that he had been left as in a hopeless condition by the physicians who were called to see him, but recovered with the wounds in the condition we have mentioned, the right superior and inferior members being affected with paralysis and contraction. He was also subject to very frequent and severe paroxysms of epilepsy, which occurred sometimes daily.

This man was operated on before the class of Rush Medical College.

The whole of the displaced fragment of bone at the seat of the anterior wound was removed by three applications of the crown of the trephine. He recovered perfectly; had but one slight epileptic paroxysm afterwards, and gradually recovered considerable use of the members. No operation was performed on the posterior wound.

The second case was that of a young man from Kendall Co., Illinois. He received a blow above the ear, which fractured and depressed the skull without dividing the scalp. No operation was performed at the time, and he recovered, as was supposed. Six months afterwards, he was seized with an epileptic fit. Three months afterwards, another occurred, and then one every month. One year after the injury, we removed the depressed portion with the trephine. He recovered, and the epileptic paroxysms recurred at lengthening intervals, until, at the last notice, six months had elapsed without a return.

The third case was that of a young man, kicked by a horse above the ear, fracture and depression being produced. Concussion and insensibility were the immediate results; after recovering from which, he remained insane, or nearly so. About four weeks after the injury, he was admitted into the wards of the so-called Mercy Hospital, where I used the trephine. Removing the depressed portions of bone gave immediate relief.

The fourth case was a man of fifty years, who, eleven years previously, had a fracture with depression in the temporal region. This gave rise for several years to no perceptible inconvenience. At length he began to be affected with giddines and loss of consciousness, which, by degrees, became more frequent, until the severer forms of epilepsy were developed. The mind was also affected by dementia to a degree which disqualified him for business. Removing the depressed pieces of bone gave great relief, and one year after the operation he was steadily improving.

The fifth case was not so favorable. A lad, about sixteen years old, came for advice in regard to severe epileptic attacks which had continued for several years. His friends stated that when an infant he had received a blow on the left superior part of the os frontis. On examining this part of the head, a depression was perceived, which, however, was soft and easily compressible. Although no bony surface could be felt at this point, yet the statement of friends of the patient that the blow had produced a depression, induced me to apply the trephine upon its margin. It was found, however, that the bone at that point was entirely absorbed; that surrounding it was in a condition of hypertrophy, very spongy and vascular, and three times its natural thickness. The soft parts presented this appearance in the point where the bone was deficient of venous erectile tissue.

In this case no benefit appeared to result from the operation.

From the four preceding, the inference is, I think, deducible, that leaving depressed pieces of cranium when there is neither wound of the scalp nor symptoms of compression of the brain, as is advised by most surgical writers, is attended by dangers not usually suspected, and that it is better, in all such cases, to raise up the depressed portions at once.—*Prof. Brainard, Chicago Journal.*

REMOVAL OF RINGS FROM SWOLLEN FINGERS: *By E. Garaway, Esq.*—The mode of proceeding is this: a reel of cotton is wound evenly round, beginning on the extremity of the finger, and bringing each coil into close apposition with the preceding, until the ring is reached. A needle is then threaded with the cotton, and passed under the ring, and the thread is carefully unwound from the finger. The ring follows each coil, as it is successively unrolled; and, by almost imperceptible degrees, is brought over the knuckle, and removed. Care must be taken that the cotton is wound on evenly, or an entanglement will occur in the unwinding. A small curved needle will pass more rapidly under the ring than a straight one.—*British Medical Journal.*

LIGHT THE ONLY CAUSE OF PURULENT OPTHALMIA OF INFANTS. Mr. Ballard (Lancet) has written an original paper upon the above subject. The generally received opinion that the disease is the result of contact with vaginal secretions is disputed: 1. Because the disease does not appear until several days after birth; 2. Extreme cases of leucorrhœa, and yet no opthalmia, if the room was kept dark; 3. No leucorrhœa, and yet opthalmia, the room being kept light.

The proofs in favor of light being the cause of the disease: 1. Expose an infant to bright light, and you can prognosticate the occurrence of the disease; 2. It never prevails if the child is kept in the dark; 3. That many cases had been cured by obscuration only.—*Nashville Med. Record.*

Treatment of Diphtheria.—M. Loiseau, in a communication to the *Gazette Hebdomadaire* (Aug. 19th), urges upon his professional brethren not to use debilitating means in the treatment of diphtheria, and to put their trust in topical and styptic measures. The author adds the following figures, which speak volumes: Out of ninety-five patients treated topically, only two died; one without treatment (we must suppose that the author means that the patient was carried off before the topical treatment could be used), and the other with an imperfect treatment. All the others recovered, without any unpleasant sequelæ, and even without a well-marked period of convalescence. As to the ages of the patients, M. Loiseau divides the cases in the following manner:

Patients.	Age.	Recoveries.
15	from 0 to 2 years	13
22	" 2 to 6 "	22
9	" 6 to 12 "	9
10	" 12 to 18 "	10
39	" 18 to 60 "	39
Total, 95		93

More than half of those whom M. Loiseau attended after they had been treated with emetics and alterants perished, and the greater part of those who recovered suffered subsequently from œdema, anasarca, or paralysis, or had to go through a protracted convalescence.—*American Journal.*

Doctrine of Absorption.—Köhler endeavors to show the difference in the rapidity of absorption between starving and fed animals. The animals experimented upon were rabbits, dogs, and pigeons; the substances used, strychnia, hydrocyanic acid, and ether; the channels of introduction, the digestive tube, the peritoneal cavity, the respiratory organs, and the subcutaneous cellular tissue of the back. The inference arrived at is, *that starving diminishes absorp-*

tion, and retards the symptoms of poisoning and death. This result is contradictory to the views of many physiologists, but is analogous to that obtained by Kaupp in his experiments on the action of loss of blood on the phenomena of poisoning by strychnia. Köhler's experiments exhibit, it must be stated, frequent exceptions to the law he endeavors to establish, but in part these exceptions appear to depend on concomitant circumstances.—*Brit. and For. Med.-Chir. Rev.*, July, 1859, from *Virchow's Archiv.*, vol. xiv., 1859.

SUDDEN DEATH FROM OCCLUSION OF THE PULMONARY ARTERIES SEVENTEEN DAYS AFTER PARTURITITON.—Dr. Draper Mackenzie communicated to the Obstetrical Society of London (July 6, 1859) two cases which had recently occurred in his practice. In the first the patient was thirty-two years of age, and had been delivered of her second child after a natural and easy labor. Seventeen days afterwards, while apparently in good health, she rose up convulsively, said she was choking, and died. On subsequently examining the body, a large, branching, fibrinous plug was found completely stopping up the right pulmonary artery and its immediate ramifications, while the entrance to the left pulmonary artery gave lodgment to a large and tolerably firm concretion. The heart was rather thin, and the lungs slightly congested; but there was no further trace of disease about the body. In the second instance, the patient had an easy labor, and, for a few days afterwards, all appeared to progress favorably, when she imprudently left her bedroom and exposed herself to cold. Shortly afterwards she was seized with difficulty of breathing, gasping, and cold clammy sweats, from which death relieved her in twenty minutes. Permission to make a post mortem examination could not be obtained, and hence it could only be surmised that the fatal event was due to the plugging up of some important but smaller vessel than those found obliterated in the first example.

Dr. Graily Hewitt stated that an elaborate essay on sudden death during the puerperal state had been recently published in the "Memoirs of the Imperial Academy of Medicine of Paris," but the author of that essay had not thrown any considerable light on the interesting question of the cause of death under these circumstances. The case of the Duchess de Nemours, who died from plugging of the pulmonary artery, would be in the recollection of the Fellows of the Society. From personal inspection of the clot, he was able to state that in that case the clot occupied the pulmonary artery and several of its ramifications, and was so firm that it could not have been formed subsequently to death. Respecting those cases in which sudden death during the puerperal state was connected with the presence of coagula in the pulmonary artery, he would hazard the following supposition as to the causes which lead to the coagulation: The blood was so altered in the pregnant woman as to favor coagulation, in the first place; and in the second place, the maintenance of the recumbent position usually rigidly enforced by the medical attendant during several days after labor, favored the stagnation of the blood in the heart and chest. It was not unreasonable to suppose that these circumstances had much to do with the occurrence of this fatal accident.

Dr. Priestly recommended that in all cases of sudden death from occlusion of the pulmonary artery, an attempt should be made not only to give an accurate account of the thoracic organs, but also of the condition of the uterus and appendages, more especially of the blood vessels and lymphatics. The researches of Virchow on this subject had conclusively shown the connection between emboli formed in the uterine veins and plugs found in pulmonary arteries; the value of reports on such cases would therefore be greatly enhanced if the investigation were carried further than the immediate seat of obstruction. He thought it not improbable that in chloro-anæmic conditions of the system, when there is an increase of fibrin in the blood, a very small amount of acrid material generated in or near the uterus, and added to the blood circulating in the vessels, might cause deposition of the fibrin, and consequent occlusion of the vessels.—*Medical Times and Gazette*, July 23, 1859.

TO THE EDITOR OF THE BUFFALO MEDICAL JOURNAL: My dear Sir—"A remarkable obstetrical case" in your last Journal reminds me of another "case," which may at least be plead in palliation of your temerity, in charging the "patronage of medical humbug" on "the most educated people." I had for many years been the family physician of a gentleman of wealth and intelligence, classically and thoroughly educated, and now occupying one of the highest and most responsible official positions in the State; and, according to their own assurance, I had the entire confidence of the family. Nevertheless, I was finally supplanted by homœopathy. I was even then urged to waive my repugnance to homœopathy in their favor, so far as to officiate as their *diagnosticator*, that they might be enabled to select their own pellets appropriately. Of course, I declined the honor.

A few years had intervened when I was called in haste, and found the family in great alarm, evidently regarding the wife, a most estimable lady, as in a very dangerous, if not dying, condition. She was laboring for breath, with a purple and turgid countenance, a depressed pulse, and really seemed in the agony of suffocation. She had pneumonia, occupying both lungs, and had been several days under homœopathic treatment. The case was urged upon me, with the assurance that I should have the entire control of it. This was at 8 o'clock, A. M. I spoke favorably of the prospect of success under appropriate treatment, for her encouragement, though I regarded the case as doubtful. She was bled moderately from the arm, scarified and cupped freely, blistered, put under the influence of calomel and emetic tartar in combination with opium; and at 4 o'clock, P. M., she was comparatively comfortable; and I felt justified in assuring her that both the urgency of disease and the terrors of allopathy were past. Having several patients in the vicinity, I was forced to neglect them for the *eight hours* I had been in constant attendance on her, and I left her with the assurance that I would be absent only a short time. I was gone thirty to forty minutes, and on my return found homœopathy reinstated! "She had lost her 'confidence' in '*allopathy*,' and returned to her first love." There was no change in the symptoms of the disease, but valiant "confidence" had reversed its usual order of march, and had taken to its heels on the first disappearance of danger. The subsequent treatment is unknown to me; but my successor was not ignorant of mine, while she was in my hands. The probable solution of the matter is, that pride was covertly at work, and shrank from the ignominy which might follow the known discomfiture of its petted humbug; and therefore this adroit movement was adopted to cover the retreat between the two horns of the dilemma, death and disgrace. The recovery went on, and the husband, some time afterwards, gave me the very complimentary assurance that "he was not quite certain that my treatment of his wife's case might not have had *some* influence in the happy result." There has been much occasion since in the family for homœopathy, but no deaths—probably no apprehension of such a result. It remains to be seen whether "confidence" in homœopathy will stand fire next time.

A year perhaps after these occurrences I was called to attend the lady in labor, with the notice that I was wanted *merely* as *obstetrician*. I went, and found a most embarrassing case of shoulder presentation, which resulted safely, both to mother and child. Did I dishonor my profession by answering the call? L.

April, 1859.

The above communication has been upon our table for some months, but was laid away with other papers when we removed to New York. This is an account of one of the numerous instances of insult to which our profession is subjected—we are charitable enough to believe thoughtlessly—by those from whom we have a right to expect a different course. The now well established fact that many diseases, formerly regarded as quite serious, are self-limited; and that some of the most serious frequently have got well and do get well in spite of injudicious treatment even, offers a satisfactory explanation to the physician of the so-called success of homœopathists in practice. This cannot be made so evident, however, to others, and it is useless to argue the point with them. The question with which our correspondent concludes seems to us to be a matter to be decided entirely by his own feelings. The honor of our profession would certainly be involved were we ever to meet irregular practitioners professionally; but it is often impossible to absolutely refuse to visit a patient, and must always be painful, especially when we are asked to go in the name of common humanity. This is particularly so in cases of labor, a condition in which a woman naturally excites all our sympathy. For a physician to refuse the aid of his skill in a case of difficult labor, under any circumstances, must be exceedingly distressing; nevertheless, in instances like that mentioned by our correspondent, we think that a physician would be justified in an unconditional refusal. The heart must sometimes overrule the head.—*Buffalo Journal.*

Treatment of Nervous Headache by the Hydrochlorate of Ammonia—*By Dr. A. Barrallier.*—The author recommends the hydrochlorate of ammonia as the best therapeutic agent in cases of nervous headache, and especially in idiopathic cephalalgia and migraine. For upwards of three years he has employed it with success 202 times out of 259. The salt is administered in the form of potion: distilled or mint water, 60 grammes; hydrochlorate of ammonia, 3 grammes; syrup of orange peel, 25 grammes; taken at three doses at half an hour's interval. These doses do not produce any evident physiological effects in the healthy condition; but, when administered during a paroxysm of nervous cephalalgia, their effect is manifested with great promptitude. Generally, after the first dose, pain abates and the pulse rises, and a gentle perspiration relieves the dryness of the skin. The influence on the circulation is so great that the pulsations, which were under 50 during the paroxysms, rise above seventy after the first dose. The headache, which is calmed by the first dose, diminishes and entirely disappears during the second and third. An important circumstance is, that the sal-ammoniac does not develop its curative action except when the pain is at its height; at the commencement of an attack, the potion has only a slight effect, but when the sufferings of the patient are very intense, the medicine acts with wonderful promptitude. Besides the temporary relief, it was observed that, in cases of headache returning in periodical paroxysm several times a month, the intervals gradually became longer, the attacks diminished in intensity, and ended by disappearing completely, after having been several times arrested by the ammoniacal potion. To obtain success, however, it must be administered in certain cases, and according to precise indications. The results of the author's observations are; that the potion of hydrochlorate of ammonia has almost constantly dispelled the attacks of idiopathic hemicrania or migraine, and of migraine succeeding menstruation more abundant than usual; it has no effect in relieving attacks of hemicrania depending on irregular or suppressed menstruation; it has given pretty good results in cranial pains depending on functional disorder of the stomach, and in accidental nervous cephalalgia; and it has been successful in relieving headaches consequent on repeated attacks of intermittent fever, those occurring in the decline of low fevers, and in the period of irritation in typhus.—*Bulletin Général de Thérapeutique.*

OBSERVATIONS ON THE CHANGES OF THE URINE IN DISEASES. *By Dr. Brattler.*—Dr. Brattler has made a series of very accurate investigations on the changes of the urine in typhus, morbilli, scarlatina, diseases of the heart, etc., which he laid down in an elaborate treatise, entitled "Beitrag zur Urologie in Kraken Zustande;" München, 1858, Joh. Palm's Hofbuchhandlung.

The author gives the following summary of his urological observations:

Casting a retrospective glance upon our investigations and experiments, we find that the urine does not suffer in disease any changes peculiar to the different morbid conditions, but that these changes are in relation with definite processes going on in the organism. The urine of a case of typhus, pneumonia, cholera, or Bright's disease, may have one and the same qualities, for the very reason that certain processes, which modify the secretion of urine, may take place in any of these diseases.

The quantity of Urine.—It is diminished: In the commencement of nearly all febrile diseases; in diseases of the kidneys, when the uriniferous tubules are obstructed (morbus Brightii).

In diseases in which the organism suffers great losses of serum, as excessive diarrhœa, cholera, copious perspiration.

In diseases of the circulatory and respiratory organs, in consequence of which less blood is furnished to the aortic system, and therefore to the kidneys, as disease of the heart, and pleuritic exudation.

It is augmented: By the resorption of hydropic effusions and exudations.

In polydypsia, diabetes insipidus.

Urea.—It is diminished: In the reconvalescence from all acute diseases, in which the organism has suffered a considerable loss of substance through fever, as in this case the nourishment carried into the sytem is used for the reparation of the lost nitrogenous tissues.

In diseases of the digestive organs which hinder the resorption of the ingesta, as chronic vomiting in atrophy after typhus, and cancer of the stomach.

In diseases of the kidneys, interfering with their functions (morbus Brightii).

In diseases of the circulatory and respiratory organs, in consequence of which less blood is furnished to the aortic system, and therefore to the kidneys.

It is augmented: In all diseases accompanied by fever, viz: by elevation of temperature. (The frequency of the pulse bears no constant relation to the secretion of urea.) The secretion of urea is the greater the higher the temperature rises.

An exception takes place only when in febrile diseases the function of the kidneys is at the same time interfered with, be it by diseases of these organs themselves, or secondarily by the influence of other organs.

In diseases in which the urea has been retained for a long time in the blood by functional disorder of the kidneys, after removal of the difficulty, as morbus Brightii, cholera, and disease of the heart.

By the resorption of hydropic effusions, as morbus Brightii, and dropsy from disease of the heart.

Chlorides.—They are diminished:

In all diseases in which exudations or transudations take place, these effusions being rich in chlorides, as typhus, pneumonia, pleuritis, Bright's disease, cholera, acute rheumatism, etc.

In the diseases of the digestive organs which hinder the resorption of the ingesta.

In diseases or functional disorders of the kidneys with diminished urinary secretion, as Bright's disease, and disease of the heart.

They are augmented: By the resorption of hydropic effusions.

Phosphoric Acid.—It is diminished:

In diseases or functional disorders of the kidneys with diminished urinary secretion, as Bright's disease, and diseases of the heart.

In diseases of the digestive organs which hinder the resorption of the ingesta.

It is augmented: In acute febrile diseases by the increased metamorphosis of tissues containing phosphorus.

The increase of phosphoric acid is, however, not as constant as that of urea. In diseases in which the phosphoric acid has been retained for a long time in the blood by functional disorder of the kidneys, after removal of the difficulty, as Bright's disease and cholera.

According to Bence Jones, in acute nervous diseases, and in osteomalacia.—*Medicinische Central Zeitung*, and *Virginia Med. Journal—Southern Med. and Surg. Jour.*

NEW ORLEANS

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ON THE STUDY OF MEDICAL JURISPRUDENCE.

By J. S. Harrison, M. D., of Arkansas.

In addition to what was said on this subject in the October number of the *Gazette*, I wish further to remark, that, besides the absolute necessity for *frequent dissections*, and *post-mortem* examinations, to enable the physician to discriminate nicely between normal and abnormal appearances, he will often be called upon for his opinion in regard to the proper treatment of such cases as are not immediately fatal—as in certain cases of poisoning, and in others, also, in which a brother practitioner may be prosecuted for mal-practice. How necessary, therefore, on account of *his own reputation*, as well as the good of others, that the medical man, when suddenly called upon to do so, should well understand how to recover suspended animation, when the vital spark has not entirely and for ever fled; and how absolutely requisite is it likewise, that he should know, not only the proper *tests* of the substances involved in alledged cases of *poisoning*, but their *antidotes*, so that when called to treat such cases, he may prescribe properly and promptly, and when called to *testify as a medical* witness, he may do so understandingly.

And here I may be permitted to say, that the kind of information to which I have just alluded, cannot possibly be possessed, without a good degree of attention to the important subject of *medical chemistry*, a subject, which is wofully neglected, not only by many students of medicine, but also by a *large majority* of medical practitioners, at least, so far as my observation has extended. And for want of this species of knowledge, on the part of the medical witness, sometimes the reputation of a valuable physician, in other respects, has been destroyed; and for want of it, doubtless, hundreds have been permitted to die, even in the hands of otherwise reputable pactitioners; for, however successful a physician may be, in the *ordinary* practice of his profession, in meeting and overcoming disease, and even in *repulsing the last enemy*, in his *accustomed* ways of approach, yet, it is certainly true, that, without this knowledge, he is but half panoplied for the contest.

But the cases to which I have now referred, are by no means the only ones which may require the physician's attention in a *medico-legal* point of view.

The honor, the *reputation*, and even the *life*, of the most useful and influential members of society, who, sometimes through malice, are accused of the most nefarious crimes, may depend entirely upon the medical witness—upon his knowledge of the science now under consideration, as developed, or elicited, in courts of judicature, and especially respecting the *signs of virginity*, the subject of *infanticide*, the *action* of certain poisons, and a variety of other matters of a kindred character, upon which, alone, the well instructed chemist, physician, or surgeon can decide.

Independently, however, of the topics to which reference has been made in the present and previous articles, there are other subjects of the highest importance, upon which a *professional opinion* is often demanded: the first of these, to which we invite attention, is that of *insanity*, a malady which is often *feigned* for the purpose of escaping punishment for crime. But alas! it is but too often real. And how terrible indeed, is the wide spread devastation of the mental powers when it does occur! when reason is driven furiously, and in dreadful confusion from her proud empire; and, not unfrequently, the *moral*, as well as the *mental* faculties, are dashed to ruins, like some venerable but dilapidated city, "broken down and without walls," with here and there, among the rubbish, a shining fragment, or a broken column, indicating its former glory. When, however, it is feigned for the purpose of concealing guilt, it demands the severest reprobation; and it is here the knowledge of the medical jurist is required, and here, too, the man of true science, will not fail to be recognized and honored by the intelligent portion of the community, while the uneducated, and *self-styled doctor*—the empyric, will sink away into his own native insignificance. Medical men are, also, often called upon for a professional opinion with regard to that state of mind in which a man is said to be capable, or incapable, of executing his "last will and testament."

In proving a will, the question is frequently involved, whether the deceased was of "sound and disposing mind and memory," and in many instances it is a very difficult matter to solve this question, upon a correct solution of which, in some cases, the highest earthly interests are involved, and which solution can only be had at the hands of the well informed medical jurist.

The boundary line between *sanity*, and *insanity*, has not at all times been drawn very distinctly by writers upon the subject.

The celebrated Locke has taught, and I believe most metaphysicians, as well as physicians, agree, that upon *some subjects* a man may be of perfectly sound mind, while upon others, he is essentially, and emphatically, *non compos mentis*; that in regard to most of the common concerns of life, he may be rational, intelligent and upright; no difference is discoverable in his words and actions from those of other men; yet, touch, but for a moment, the secret springs which lead to the cause of his derangement, and in an instant "his ideas are all afloat," and the next moment, "he stands confessed, the perfect *monomaniac*."

Now, if, under the influence of this particular delusion, he *commit a crime*, the question which is frequently raised in such cases, is, should he be held accountable for that act? If, under the influence of this delusion, he makes a *will*, whether that will should be regarded as valid or invalid? Now, when the medical witness is required to give a professional opinion under these circumstances, the utmost degree of care, and the nicest possible discriminations will be found to be necessary, otherwise, the reputation of the witness, as well as the best interests of the parties concerned, may suffer irreparable loss. If, in all the other departments of medical jurisprudence, great care is necessary in forming, and caution in expressing a professional opinion, how much more so is it in these cases which have baffled even the wisdom and persevering application of such men as Rush, Haslam, and others, equally wise and great. It is to be regretted that some men, in giving testimony, who have scarcely ever read a book on this subject, will pronounce with the greatest degree of dogmatism, greatly to the prejudice of truth, and the character of our profession, at the same time illustrating the trite, but truthful saying, that

"Fools will venture,
Where angels dare not tread."

I wish to present but one other subject in this connection. *The benefits* conferred on the community by the thorough cultivation of forensic medicine, I am well satisfied, are by no means properly appreciated by the profession, or a greater degree of attention would be given to this subject.

"There is scarcely an action, a movement of man in society," says Griffith, "of which it does not take cognizance; it pervades all nature, and at all times; it is the first most sacred of human laws, for it has for its object the good of society and the happiness and security of mankind." And under no circumstances, perhaps, does the science of medicine assume so important and dignified an attitude, as when regarded as a *branch of legislation.*

"Disentangled from the web, with which worldly caprice, credulity, and empyricism are ever seeking to embarrass the more ordinary path of her labors, she at once comes forth, in all the pride and strength of undeniable facts, and endless resources, and her disciples are enabled to present additional claims upon the respect of the learned, the confidence of the oppressed, and the gratitude of the public." In the exercise of his profession as a medical jurist, how truly honorable and exalted is the occupation of the physician! In the performance of the functions of his high calling he impinges upon the boundaries of almost every circle of natural science in his extensive orbit, and on which, at the same time, he does not fail to shed additional rays of knowledge and of light. It is very beautifully remarked by a popular writer, that, "it is when thus called on, he develops the vast resources and hidden stores, which have for ages been accumulating in the sanctuary of his tutelary divinity;" and these are all presented as a safeguard to the innocent, and a shield to the oppressed." The illustrious and immortal Rush concludes one of his lectures on the subject, substantially in the following forcible and elegant language: "To animate you to the study of medical jurisprudence, contemplate the extent of the services you will thereby be enabled to render to individuals and to the public. Fraud and violence may be detected and punished, the widow and orphan may be saved from want and ruin, virgin purity and innocence may be vindicated, conjugal harmony and happiness may be restored, and the sources of public misery in epidemic diseases may be removed by the force and influence of your testimony in a court of justice."

In these, and various other respects, from the very nature of his profession, the energetic, intelligent, and humane medical jurist has it in his power to do more for the benefit of society, perhaps, than almost any other man in it, however well-disposed such other man might be.

Nor is this all: by cultivating the science I am now recommending, we may extend its benefits beyond our immediate circle—beyond our courts of justice, to the legislatures of our country, and thereby become the means of procuring *laws* and *sanitary enactments,* founded upon modern discoveries, and enlightened opinions in physiology, which cannot fail to be a blessing to the community, and, at the same time, to reflect honor and dignity upon our profession.

Champagnolle, Ark., Nov. 1, 1859.

MIASMATIC HÆMATURIA—A CASE.

By Wm. E. Brickell, M. D. Vicksburg, Miss.

Messrs. Editors—Having observed, in your journal for this month, an article in relation to miasmatic hæmaturia, I have concluded to give all the information, though little it be, I possess in relation to the subject. Last spring I was called to see the son of Mr. B., a lad twelve or thirteen years of age, and was informed by his father, that he had passed a pint or more of blood from the bladder. I examined the boy and found him with a quick, small, irregular and very compressible pulse; skin cool, slightly moist at times, feet and hands *decidedly cool;* head, sometimes, warmer than natural, *no* pain about the loins nor anywhere else; sighing respiration; tongue moist but very pale, with a slight fur, thirst insatiable. The father informed me that two days before he had a chill, but he did not think he had had one on that day I was satisfied that he had, and that he was still suffering from it. I pescribed quinine, opium and camphor, and on the next day I found him much inproved, and advised the father to keep him under the influence of quinine for a few days, for I was satisfied that the hæmaturia was caused by the chill. On the following day I was again called to see him, and found him almost exsanguine, and in a kind of stupor. I learned that he had refused to continue the quinine, and his father, deeming the case hopeless, had failed to carry out my instructions. The consequence was another chill, and recurrence of the hæmaturia, at which time, he lost a vast amount of blood; I saw nearly a quart that he had passed just before I reached the house. I at once forced him to take brandy by the mouth and quinine by the rectum, and as soon as possible gave him appropriate nourishment He gradually improved and was out again in the course of two or three weeks. In August he had three chills, and with the third a recurrence of the hæmaturia, and came near dying. I employed quinine and brandy freely, and he recovered. In the latter part of September he had another attack and sank under it. I am satisfied that had his father sent for me earlier in this last attack, and had the quinine been given *freely* as *directed,* the lad would have been saved.

I should here state that I gave the quinine by enema, because he was bitterly opposed to taking it, and it was almost sure to cause vomiting. I had never seen or heard of such a case, yet I was satisfied that the hæmaturia was but an effect of the chill, and my reasons for so thinking were as follows: There was no fever—the pulse was as frequent as one hundred and fifty, but *small* and *utterly without force*—no pain in the lumbar region or in the bladder or urethra; he had received no mechanical injury to account for the hæmorrhage, and it always occurred at the time the chill came on, and ceased as it went off. Again, he would pass a quantity of blood; in three hours the urine would be but slightly tinged with blood, and in two or three hours more it would be as clear as spring water. A few days ago, I was called to see a patient in Louisiana, and there met with my old friend, Dr. David Pugh, of Joe's Bayou. I mentioned the case to him as a singular one, whereupon he informed me that he had seen several such cases, and that wherever quinine was *freely* used the patient was *sure* to recover.

THE LIFE AND LABORS OF LÆNNEC:

AN INTRODUCTORY ADDRESS DELIVERED AT THE NEW ORLEANS SCHOOL OF MEDICINE, NOV. 14, 1859.

By Austin Flint, M. D., Professor of Clinical Medicine, etc.*

It is customary in our American colleges to signalize the beginning of each annual session of instruction by an address, on the part of the faculty, by one of its members. In some countries the event is made the occasion for imposing ceremonies. It accords with our notions of republican simplicity to dispense with these, and the only formality with us which makes the opening of a new colleigate term, is the time honored "introductory," usually given on successive years, by the different members of the faculty in rotation. The privilege of addressing those who are assembled on this the opening day of the fourth regular course of lectures in the New Orleans School of Medicine, has fallen to my lot. As the organ of the faculty it is my pleasing duty to salute you in their behalf. I am commissioned to extend to you a cordial greeting. We welcome you to this city and to this institution. We have invited you hither under the belief that the relations of teachers and pupils which we are to sustain towards each other, will prove mutually agreeable and advantageous. We thank you for having accepted our invitation, and we fervently trust that the wishes and expectations, on both sides, with which we meet, may be more than fulfilled.

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*For the details of the Life of Lænnec contained in this address, the writer is indebted to the Biography prefixed to the Treatise on Medical Auscultation, translated by Dr. Forbes

In view of the relations about to be assumed, the present occasion is one not only of interest, but of moment to the faculty, as well as to yourselves. On our part, we have undertaken to guide and assist your efforts in preparing yourselves for the practice of medicine. The amount of instruction which you will receive in the several departments of medical science, forms but a part, albeit a very important part, of this undertaking. It is not arrogating too much to say that the character and usefulness of the positions which you are hereafter to occupy in life, will be likely to be affected in no small degree by the thoughts, views and aims derived from your teachers in the lecture room, at the bed side of the sick, and in social intercourse. We feel the responsibility which attaches itself to us in regard not only of the prelections from our respective chairs, but of the influence which we cannot fail, if we would, to exert as members of the medical profession, and as men, as well as teachers. Under a deep sense of the importance of our official duties, together with the precepts and examples inseparable from our unofficial relations, we pledge our strenuous exertions in behalf of your studies and the promotion of your best interests. But the whole of our duty is not yet expressed. The character, success and prosperity of the school with which we are connected, are committed into our hands. Thence rests upon us a weighty obligation. Our position as a faculty, in this point of view, involves more than an ordinary amount of responsibility. The New Orleans School of Medicine is a youthful institution. It is about to enter on its fourth annual stadium. Thus far it has advanced with a rapidity almost unprecedented. It is at this moment fairly entitled to rank among the most prominent and flourishing of the medical institutions of our country. Its progress is, and is to be, onward; and it is for us to secure the fulfillment of its destiny by unremitted exertions.

On your part, gentlemen, there are duties and responsibilities. You are bound to avail yourselves to the utmost of the educational advantages which are here at your disposal. This will require attention, diligence, industry. The opportunities which you may enjoy for acquiring knowledge in the several departments of medical science, are ample. In certain branches, viz: anatomy, surgery, midwifery and clinical medicine, the resources for instruction, which this city affords, are unequaled. The great Charity Hospital, a household word as familiar throughout the length and breadth of this land as the name of our city, offers facilities for acquiring practical knowledge not surpassed by those of any other institution on this continent. I say this with due deliberation. Where is the hospital equal to this in size and scope to which the medical student has free access at all times and where clinical teaching and pathological researches are free from all restrictions? Is there an American medical school elsewhere than in New Orleans, in which material for instruction in anatomy, abundant, and furnished to the student gratuitously, is obtained with the sanction of law, without the need of secrecy or of formalities which render legal provisions inoperative! Thanks to the medical profession and enlightened legislators of New Orleans, for the wise and liberal policy which has made the Charity Hospital conducive to the interests of humanity, by being subservient to medical education, as well as an asylum for the sick! Honor to Louisiana, the only State in the Union, in which the legalization of the study of anatomy is complete!

The mutual relations which are to exist henceforward between the faculty of this school and the class now for the first time assembled, involve a host of subjects which might be appropriately considered on the present occasion. But it would be difficult to find a subject which has not been the theme of many discourses; nor would it be easy to select a field of remark into which you had not been led already by your own reflections. Custom allows, and indeed necessity requires, a wide latitude as regards the topics which may enter into an introductory address. I propose to occupy the hour in a way which I hope will not be deemed inappropriate, and which will, at least, have the advantage of directing the current of our thoughts from time-worn channels. It has occurred to me that it may be interesting and profitable to sketch the biography of some one of the illustrious men whose lives and labors have shed lustre on our profession. A great and good man lives not alone for his contemporaries, but for those who come after him. The works which he achieves are but a part of the inheritance which he leaves to posterity. He outlives, in this world, his mortal life, in the never dying influence of his goodness and greatness. In selecting biography for this occasion, I have chosen from a long list of honored names, one sufficiently familiar, but which will, perhaps, suggest to your minds when it is pronounced, nothing more than the brilliant discovery with which it is identified. I ask your attention to a brief survey of the life and labors of Laennec.

Réné Theophilé Hyacinthe Laennec was a native of Lower Brittany, in France. He was born in 1781. His father was an advocate of some distinction, and a man of genius, but of erratic habits. The responsibility of the parental relation appears to have been transferred, at an early age, to a brother of his father, a physician of eminence, and a professor of medicine and materia medica, in the school at Nantes. His studies were directed by this uncle. At the age of eighteen, he had distinguished himself for his proficiency in preparatory studies, and had made sufficient progress in medicine to be appointed, temporarily, an assistant surgeon in the army. At the age of nineteen, he left the military service and went to Paris to complete his medical education. He attached himself to the service of Corvisart, at the hospital *la Charitè*. He graduated as Doctor in Medicine, four years afterward, in 1804.

It would be interesting to know the thoughts, the aspirations, the experiences of such a man as Laennec, during his four years of studentship at Paris, between the ages of nineteen and twenty-four. These could only be known through his own confessions or the revelations of intimate friends, and they have not been disclosed. But we are not in the dark as regards his habits of industry, and the work which he performed during this interesting and important period of his life. During the first three years of his attendance at *la Charitè*, he drew up a minute history of nearly four hundred cases of disease, and attended the medical lectures at the School of Medicine. He was distinguished among the host of students for his zeal in medical pursuits, and by his knowledge of the ancient languages. In his twenty-first year he began to publish contributions on important subjects. Several valuable papers from his pen appeared in the *Journal de Médecine*, conducted by Corvisart, Leroux and Boyer. The two chief prizes in medicine and surgery granted by the Institute of France, were awarded to him during this year. He also, in the same year, published a memoir on cases of peritoneal inflammation. He subsequently wrote reviews for the *Journal de Médecine*, was the author of a paper describing the tunics investing the abdominal viscera, read a memoir before the Faculty of Medicine, on a variety of hydatids, to which he was the first to give the name of *acephalocysts*, and during the last year of his pupilage gave a course of lectures on pathological anatomy.

Let me commend to your consideration, gentlemen, students of medicine, this student-life of this man of genius. None will deny to Laennec the quality of genius; yet behold what an amount of labor he performed while preparing, as you now are, for the active duties of medical practice. Far be it from me to doubt that Providence sees fit to endow different minds with different degrees and kinds of talent, nor would I derogate, if I could, an iota from the transcendent abilities of Laennec, which God bestowed upon him; yet, can it be doubted, that his achievements in after years were in no small measure, due to the habits of study, the intellectual training, and the learning, which were the fruits of his zealous exertions in early life! Ah! gentlemen, be not so deceived as to suppose, on the one hand, that superior natural powers of mind can ever supersede the necessity of industry, nor, on the other hand, that the want of an inborn superiority renders industry useless. The Creator has implanted in every intelligent being, capacity to fulfil a certain mission in this world; what that mission is, human intelligence cannot foresee, and whether it be, or be not fulfilled, depends on the diligence with which the faculties are cultivated, and opportunities improved.

Having graduated at the age of twenty-four, he engaged in the practice of medicine, but without relinquishing his devotion to medical studies. He conducted, as chief editor, the *Journal de Médecine*, for five years and he continued to give lectures on pathological anatomy for two years. The duties of practice obliged him to discontinue the latter. He entertained, for a long time, the idea of preparing a work on that subject. He did not cease to prosecute pathological investigations, and he contributed various articles to the Dictionary of Medical Sciences. He discovered, and named the varieties of malignant disease, still known as encephaloid, or medullary cancer, and melanosis.

His appointment as chief physician to the Neckar Hospital, twelve years after his graduation, was an important event in his career of labor. Here it was, that, shortly after entering on the duties of his office, he made the grand discovery with which his name will live to the end of time. He devoted two years to clinical observation, in developing the application of auscultation to diagnosis, before he published his discovery. He was not in haste to cry eureka! In June, 1818, he presented an outline of the new method, in a memoir which he read before the Academy of Sciences. The manner in which he was led to the discovery of auscultation is described by him with a simplicity and modesty so beautiful and characteristic, that I can not forbear to quote his own language. He says: "In 1816, I was consulted by a young woman, laboring under general symptoms of diseased heart, and in whose case, percussion and the application of the hand, were of little avail, on account of the great degree of fatness. The other method just mentioned,* being rendered inadmissible, by the age and sex of the patient, I happened to recollect a simple and well known fact in acoustics, and fancied it might be turned to some use on the present occasion. The fact I allude to, is the great distinctness with which we hear the scratch of a pin at one end of a piece of wood on applying our ear to the other. Immediately, on this suggestion, I rolled a quire of paper into a kind of cylinder, and applied one end of it to the region of the heart, and the other to my ear, and was not a little surprised and pleased, to find that I could thereby perceive the action of the heart in a manner much more clear and distinct, than I had ever been able to do by the immediate application of the ear. From this moment, I imagined that the circumstance might furnish means for enabling us to ascertain the character, not only of the action of the heart, but of every species of sound produced by the motion of all the thoracic viscera, and consequently, for the exploration of the respiration, the voice, the *rales*, and perhaps, even the fluctuation of fluid effused in the pleura or pericardium. With this conviction, I forthwith commenced at the hospital Neckar a series of observations from which I have been able to deduce a set of new signs of diseases of the chest, for the most part, certain, simple, and prominent, and calculated, perhaps, to render the diagnosis of the diseases of the lungs, heart, and pleura, as decided and circumstantial, as the indications furnished to the surgeon by the introduction of the finger, or sound in the complaints wherein these are used."

How unaffected and unassuming the tone of this narrative! And, yet, two years of unbiased experimental observation had enabled Laennec to comprehend and demonstrate the vast importance of his discovery. He traces the discovery to a casual suggestion. Was it, then, merely the result of accident, the offspring of a lucky thought? We are told that Newton attributed the origin of the researches which led to the discovery of the law of gravitation to his having chanced to speculate on the falling of an apple to the ground. The human mind is fond of the marvellous, and it is often ingenious in accounting for the eminence of others on the score of good fortune. It is, therefore, apt to seize with avidity on such incidents, to which, with the humility often associated with true greatness, discoverers attach undue importance. The use of the paper cylinder was simply the circumstance which marked the birth of the idea of physical exploration in the mind of Laennec. Applying the ear to the chest was not new. It was practised even by Hipocrates. Laennec had been accustomed to listen to the sounds of the heart, by the direct application of the ear to the walls of the chest, and he would have resorted to this procedure in the case of the young woman referred to in his narrative, were it not for certain reasons which he assigns. Moreover, the impromptu stethoscope, except in that particular instance, offered no advantages over the direct application of the ear. The occasion was memorable, not for the origin of the stethoscope, but as the point of departure for that "series of observations," from which the gifted mind of Laennec, with industry and perseverance, was "able to deduce a set of new signs of diseases of the chest." It may seem to have been accidental that his mind was led into this field of research. But events of such importance are not left to chance. Providence ordained the circumstance which awakened and directed the spirit of inquiry; and the genius of Laennec is manifested in the fruits of patient, skillful investigation. So it is with the so-called favored few, to whom the world is indebted for great discoveries and improvements. It is not because the opportunity has been offered to them alone, that they have fulfilled their mission, but they have had the sagacity to perceive, the spirit to strive, the boldness to execute, and last, not least, that inestimable quality—patient industry.

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*Viz: the direct application of the ear to the chest.

The memoir of Laennec communicated to the Academy of Sciences, was received with approbation by that distinguished body. A committee of three, to whom it was referred, reported in complimentary terms, and the report was adopted by the Academy. The discovery did not provoke, to much extent, opposition and ridicule, springing from professional jealousy. This is probably to be explained, in a great measure, by the universal and unlimited confidence felt in the moral, as well as intellectual character of the discoverer, and the singular modesty with which the discovery was made known. It is amusing, however, at this day, when the full value of auscultation is understood, to refer to the report of the committee of the Academy of Sciences, on the subject, in 1818. The report occupies three printed octavo pages, and is signed by Portal, Pelletan and Percy, names now comparatively unknown. The committee give their solemn testimony, that the sound of respiration may be heard over the healthy chest, and that they were able to distinctly hear the sounds of the heart through the stethoscope; and they conclude that the operation of the discoverer, with regard to the possibility of obtaining, by means of auscultation, certain signs of different maladies, affecting the heart and lungs, is probably correct! Lest they might be led to accord too much to Laennec, they were careful to state that the idea of applying the ear to the chest, was not new, since Hippocrates suggested this procedure in order to ascertain the existence of empyema; and that physicians had been for a long time accustomed to apply the ear over the præcordial region to determine the force of the beating of the heart.

The cautious reserve evinced in the report, is not to be wondered at. The vast importance of the subject, and the influence which it was destined to exert on practical medicine, could not have been foreseen. Laennec, himself, confesses that auscultation, as developed by his subsequent labors, far surpassed the estimate which he placed upon it in the early part of his researches. It is a curious feature of the report, as it is of the memoir and subsequent publications of Laennec, that the essence of the discovery was supposed to consist in the application of the wooden cylinder, or the original stethoscope. This instrument is described by the committee with minutenesss, and they state, on the verbal authority of Laennec, that no definite signs of disease are to be obtained by the application of the ear directly to the chest. It does not derogate from the merit of Laennec, as a discoverer, nor from the value of his researches, that the stethoscope has been proved to be by no means essential to the practice of physical exploration; that the ground on which he based the application of this instrument, viz: a supposed power of intensifying transmitted sound, is an error in physics, and that all the signs of cardiac and pulmonary diseases, might have been discovered by the ear applied immediately to the chest. Laennec's claims to immortality rest on the opening of a new field for exploration, and on the developments resulting from his own labors in this field, and not on the employment of the wooden cylinder, which subsequent experience has shown to be unnecessary, and which late improvements have rendered comparatively useless.

Other countries were not remarkably tardy in recognizing the importance of auscultation. Sufficient delay to test, by means of clinical observations and autopsical examinations, the correctness of the principles of the new science, was but natural and proper. But despite well known national prejudices, it was speedily transported across the English channel and found favor with the British observers. Some of the most eminent of these soon became its most zealous expounders and contributed important additions to the facts developed by Laennec. The names of Stokes, Elliotson, Williams, Hope and Fuller are to be especially mentioned in this connection. The latter was made particularly instrumental in the diffusion of knowledge on the subject, by translating the writings of Laennec.

In our own country, within ten years from the date of Laennec's memoir to the academy of sciences, auscultation was zealously studied and advocated. One of the earliest American disciples of Laennec who was active in the importation of the doctrines of his master, was the late Dr. John D. Fisher, of Boston. As early as 1832, when I attended medical lectures in Boston, James Jackson, the professor of medicine, then about to retire from medical teaching, but who still lives, an honored practitioner, and a venerable student in medicine, was earnestly engaged in the subject of physical exploration. He never failed to carry the stethoscope during his hospital visits, and the signs of cardiac and pulmonary diseases entered largely into his clinical instructions. At that time his son, James Jackson, Jr., whose untimely death, at the threshold of a medical career full of promise, is ever to be deplored, was enthusiastically prosecuting the same studies in Paris, under the guidance of the eminent Louis, and had already opened up a branch of inquiry with respect to the signs pertaining to the act of expiration, which will ever identify his name with the subject of auscultation. Since I have beenled incidentaly into this train of remark, it would not be less unjust than unpatriotic, were I to omit to mention the names of Oliver Wendell Holmes, John B. S. Jackson, Samuel Jackson, Gerhard and Swett as those who have contributed greatly toward the progress in this country of the study of the physical exploration of the chest.

The first edition of the great work of Laennec on auscultation, was published after a little more than a year from the date of his memoir communicating his discovery to the Academy of Sciences. This work was entitled: *Mediate Auscultation, or a treatise on the diagnosis of diseases of the Lungs and Heart, based chiefly on the new method of exploration.* In this treatise the knowledge to be obtained by auscultation is presented with a completeness truly astonishing. It is in this fact that the intellectual greatness of Laennec is most apparent. It has been justly said that there is perhaps no other instance of a discovery of equal importance being brought to such perfection by the hands of the discoverer. I do not design on this occasion to discuss the subject of the physical signs as developed by the labors of Laennec. It would be impossible to do this within the limits of a single discourse, and it belongs to the course of didactic instruction upon which we are about to enter. Suffice it to say here that, although during the forty years which have elapsed since the publication of Laennec's works, the application of physical exploration has been considerably extended, and rendered more complete in many of its details, the fundamental truths presented by the discoverer of auscultation, not only remain as the basis of the new science, but form a large portion of the existing superstructure. Let the student become familiar with all that is now known on this subject, and he will then read the writings of Laennec with amazement that there remained so little to be altered or added.

The unremitting devotion, for more than three years, to researches, prosecuted in the wards of the Neckar hospital, and the dead house, together with the duties of medical practice, and the composition of his work, proved too much for a constitution never vigorous. Shattered health obliged him to leave Paris and return to his native province in the country. It is painful to be told, as we are, by one of his biographers, that in the full tide of the success of his great discovery, when the value of his labors were acknowledged, and his position was such as should satisfy the highest worldly ambition, he was afflicted with mental despondency to such an extent as to render him weary of life. This apparent incongruity is intelligible to those who have experienced the effects of unduly prolonged and excessive mental application. Cessation of intellectual labor, and the field sports, in a short time led to restored health and energy. He foresaw, however, the consequences of a renewal of his scientific pursuits, and it is stated by a biographer, that "the great regard which he had for his family and the powerful influence of his religious principles, had alone sufficient weight to make him leave his retreat."

He returned to Paris after an absence of two years, and again entered on his hospital duties. He now began to give clinical lectures, expounding more particularly the application of auscultation. These were largely attended by students from all nations. In the following year he was appointed Professor, first, of Medicine in the College of France, and afterward, of Clinical Medicine, at the hospital *la Charité*, where, nearly twenty years before, he had prosecuted his clinical studies as a medical student. He declined a higher appointment, preferring, in the language of his biographer, "that which offered him an opportunity of continuing his researches and extending the knowledge of his discoveries." Another edition of his treatise on auscultation was to be prepared. In doing this, he submitted all the facts to a fresh examination; he remodelled the entire work, and took up the treatment of the diseases which, in the first edition he had considered only in regard to the anatomy and diagnosis. With the completion of this task ended his scientific labors. The revised treatise appeared in 1826. Before its publication, cough, febrile movement, and other symptoms pointed to serious pulmonary disease. The physical signs which he had elucidated, announced but too plainly the existence of tuberculosis. It was his lot to exemplify, in his own person, one of the affections, to the knowledge of which his studies had so largely contributed; and this is one of the many similar instances which have led to the supposition that concentration of the attention upon any particular class of diseases, predisposes to their production. As a last resort, he once more sought the renovating influences of his country residence, but without avail. He died six months after the publication of the second edition of his work, at the age of forty-five.

If the occasion permitted, here would be the proper place, in the course of these remarks, to speak of the importance of the labors of Laennec as regards their influence on practical medicine. We have not time to enter into a discussion of this subject, nor is it necessary. The universal value of physical signs in the discrimination of thoracic diseases, and thereby, in the successful study and treatment of these diseases, is admitted by all who have given to them sufficient attention to appreciate their importance. Suffice it to say, that cardiac and pulmonary affections, which prior to the researches of Laennec were among the most obscure, are now, perhaps, better understood, than the affections belonging to any other nosological class, and that this is owing mainly to improvement in diagnosis by means of physical signs, can not be doubted. The discovery of auscultation, as the point of departure for the development of the diagnostic character derived not only from that method, but from percussion and the other divisions of physical exploration, will ever be ranked among the most memorable of the epochs belonging to the history of medicine.

The researches of Lænnec connected with auscultation, constitute the crowning glory of his scientific labors, but his claims to renown by no means rest solely on these researches. His studies in pathological anatomy were productive of important results. He was the first to describe the anatomical condition of the lungs in emphysema. It is remarked by Rokitansky that this discovery, had he done nothing more, was sufficient to render his name immortal. His clinical observations relating directly to therapeutics, were not without value. His experience in the treatment of pneumonia, for example, may be cited in proof that blood-letting is not essential to the successful management of this disease. His English translator, Sir John Forbes, writing at a time when the doctrines of Broussais were much in vogue, takes exception to his therapeutical views, and imputes his non-acceptance of these doctrines to personal prejudice. Time, however, has shown that in this respect, he was wiser than his critic in trusting the seductive influence of the Broussaian theory.

Of the private and domestic history of Laennec little has been made known to the world. In the career of a man whose scientific labors began in youth, and were continued lmost unceasingly, even after a fatal illness had commenced, there was probably little beyond his daily avocations, which was open to observation; and Laennec was a man to shrink from the idea of a public exposure of his inner life. Forgetfulness of self is apparent in his writings, and in the sacrifice of health, and perhaps, of life, to his ardor in the acquisition and diffusion of useful knowledge. Painfully interesting and admirable is the spectacle of such a man, calmly and humbly devoting all his powers as a free-will offering to the cause of truth and the interests of humanity! He was married but two years before his death, and died childless!

It is natural to feel an intense desire to see the faces of those whom we greatly reverence, and if this be impossible, we gaze upon their portraits with deep interest. The lithographic picture of Laennec (which our worthy Dean has caused to be suspended here, on this occasion), presents a countenance and head in keeping with the intellectual and moral character of the man. The lofty and expansive forehead denotes mental endowments of no ordinary stamp. In the expression are combined the wisdom and calmness of the philosopher, with the mildness and benevolence of the philanthropist. It would require no great skill in physiognomy to know that the original of such a portrait was gifted, not only with a high order of intellect, but with those higher qualities, which make men truth-loving, conscientious, affectionate and noble-hearted.

The great amount of labor which Laennec accomplished was performed under the disadvantage of a slender constitution. His stature was small, and "during the latter years of his life, he was attenuated in a most remarkable degree, so that it was a matter of astonishment to every stranger that he could undergo the exertions which his duties required." He was fond of hunting and domestic amusements. He had a taste for practical mechanics and was accustomed to make his own stethoscopes. Through the kindness of one of my colleagues, I am so fortunate as to have in my possession a stethoscope which belonged to Laennec, and which was probably made with his own hands. This is to me a precious relic, in addition to its value as a memento of the giver. He was a proficient in classical studies, reading Greek authors with facility, and books and discourses in the Latin tongue, writing with ease and purity. In his intercourse with patients, friends, and pupils, his manners were characterized by mildness and affability. The reputation which he acquired in no wise affected the humility and kindness of heart which were the most prominent traits in his moral constitution. His benevolent disposition made him ever ready to help the poor by his professional skill, and to give to this class precedence over those who were able to purchase his services. He was equally ready to assist the needy from his purse, and his private charities, unknown during his life, were found after his death, to have been unstinted. To crown all, he was a moral and a religious man. His life affords an instance, among many others, disproving the vulgar error that the pursuits of science are unfavorable to religious faith. He lived and died a firm believer in the truths of Christianity. To quote the language of one of his biographers, and his friend from youth, the distinguished Bayle, "his death was that of a Christian, supported by the hope of a better life, prepared by the constant practice of virtue. He saw his end approach with composure and resignation. His religious principles imbibed with his earliest knowledge, were strengthened by the conviction of his maturer reason. He took no pains to conceal them when they were disadvantageous to his worldly interests, and he made no boast of them when their avowal might have contributed to favor and advancement."

I have thus, gentlemen, sketched very imperfectly the life and labors of a truly great and good man. The annals of medicine furnish many such. My predilections for the studies founded by Laennec, have naturally led me to hold his memory in peculiar veneration; but it would be easy to select the names of others, whose biographies, in like manner, are redolent of greatness and goodness. The medical profession, as it seems to me, has been remiss in often failing to place on record, for the benefit of posterity, the life-histories of its distinguished members. The profession is too indifferent on the subject, and in this it does injustice to itself, as well as to the memories of those who have deserved to live in honorable remembrance. The contemplation of the lives of worthy brethren who have gone before us, is well calculated to stimulate our zeal, guide our aims, encourage us to perseverance, and increase the attachment to our calling. The profession is remiss in not doing more toward popularizing knowledge of medical biography. It is mortifying to reflect that even the names of those who have rendered signal service to humanity by discoveries or improvements in medical science, are barely known to the intelligent portion of the public. It would probably be difficult to find many persons in any community, out of the ranks of the medical profession, who are aware that such a man as Laennec ever lived! Or, to take a more striking illustration, how small a proportion of these, who would blush to be considered wanting in general information, are familiar with the name of the immortal discoverer of vaccination; and yet, owing to the genius, boldness, industry and perseverance of Jenner, millions have been saved from death by the most loathsome of diseases! I cannot but think that the public estimation of our profession would be in no small measure enhanced, were a fair share of the popular biographical literature allotted to the lives and labors of medical men.

To the student in medicine, medical biography is especially to be commended, not merely as an attractive province of polite learning, but because it cannot fail to exert a salutary and lasting influence upon the character. Let the young mind anxious to fulfill its mission, go to the past and study the lives and labors of the great and good men, whose destinies in this world have been accomplished. Who can doubt that it is in the order of Providence for the illustrious dead to serve as shining lights for the living! To illumine the paths of those who are to follow in their footsteps, was a part of their mission. This thought should stimulate the desire to live beyond this bodily existence, in the cherished remembrance of mankind. It is a noble and virtuous ambition to strive thus to survive on earth the brief term of mortal life!

The career of the distinguished man whose biography has been our theme on this occasion, is preëminently worthy of admiration. In his character were beautifully blended the finest intellectual and moral qualities of our nature. With mental powers of the highest order, were combined simplicity, modesty, purity and disinterestedness, in such measure that we feel he was a man to be loved not less than admired. His zeal and industry in scientific pursuits were based on the love of truth for its own sake, and a desire to be useful to his fellow men. To these motives to exertion much of his success is to be attributed. Mere intellectual ability and acquirements do not qualify either to make or to appreciate important scientific discoveries. The mind must rise above the obstructions of self-love, jealousy and selfish aims. Hence it is, that most of those who have attained to true eminence in the various paths of scientific research, have been distinguished for excellencies of the heart as well as of the head.

The example of Laennec is worthy of our imitation. His superior natural gifts we can only admire. His mission was far above aught that we can hope for. But we can imitate the industry without which his genius would have been fruitless. We may aspire to emulate his virtues. It is neither arrogance nor folly to be inspired by ambition in contemplating intellectual and moral attainments which are beyond our reach. We are commanded ever to strive for Divine perfection. Let us show our reverence for the memory of Laennec by endeavoring to follow humbly in his footsteps.

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SPECIAL SELECTIONS.

THE GLYCOGENIC FUNCTION IN FŒTAL LIFE.

A Communication by M. Claude Bernard *to the Academy of Sciences, Paris, at its Sitting of January* 10*th*, 1859. (*Translated for the Nashville Monthly Record, by* Daniel F. Wright, M. D.)

On a New Function of the Placenta—*By M. Claude Bernard.*—The object of my communication is to establish, anatomically and physiologically, that the placenta, with other uses which are undoubtedly varied and numerous, is destined during the earlier stages of fœtal development to accomplish the glycogenic function of the liver, before the latter organ has acquired that development of structure which subsequently enables it to perform that function.

I have been for a long time led aside from the result towards which my researches aimed, through making my experiments upon the placenta of the ruminant animals, which are easily procurable at the shambles of Paris. During several years I fruitlessly made repeated observations upon calves and lambs taken at every stage of intra-uterine life, and was still unable to find any part of the placenta of these animals which contained the glycogenic matter. Spite of these early failures, I afterwards had recourse to the placenta of rabbits, guinea pigs, etc.

I found that there is in the placenta of these animals a white substance formed by epithelial cells or agglomorate glandules. I moreover determined that these cells, like those of the liver in the adult animal, were filled with glycogenic substance. This mass of glycogenic cells appeared to me to be chiefly situated between the maternal and the fœtal portion of the placenta, and subsequently to its development seemed to be atrophied in proportion as the fœtus approached the period of its birth. I have since ascertained that the placenta of rabbits and guinea pigs is formed of two portions having distinct functions: the one vascular and persistent till birth; the other, glandular, preparing the glycogenic matter, and having a more limited duration.

Meanwhile, the negative observations made upon so large a number of the ruminants arrested my attention: negative experiments which were to me just as indubitable as those from which I obtained the above positive results.

In repeating my researches, I succeeded in establishing a remarkable arrangement which no one before had distinctly pointed out: that while the vascular portion of the placenta represented by its various cotyledons accompanied the allantois and was distributed on its external surface, the glandular portion was distinct from it and was developed on the internal surface of the amnion. Whence it results, that if in the rodentia, and the other animals with a simple placenta, we find the vascular and glandular portions of the placenta mixed together; in the ruminantia, on the other hand, we find the vascular and glandular portions of this organ developed separately on distinct membranes, and capable, in consequence, of being examined separately in their respective evolution. Thanks to this anatomical arrangement, we are able to prove clearly that the vascular portion of the placenta persists and grows until birth, while we see that the glycogenic portion attached to the amnion increases during the earlier periods of gestation, and attains its greatest development towards the third or fourth* month of intra-uterine life, then disappears by degrees, passing through the various forms of atrophy and degeneration; so that at the birth of the mamifera there no longer exist any traces of that temporary hepatic portion of the placenta. But we ought, moreover, to add, to arrive at the true character of these organs, that during the whole period while the hepatic placenta of the amnion is growing and performing its function, we observe that the fœtal liver does not yet possess its appropriaie structure or functions, and that it is precisely at the moment when the liver is developed, and its cells, having acquired their characteristic form, commence secreting glycogenic matter, that the hepatic organization of the amnios has a tendency to disappear.

The hepatic patches of the amnios appear in ruminants from the earliest periods of embryonic life. They are developed by degrees on the internal face of the amnios, covering over the umbilical cord to a point where a well defined line separates the fœtal integuments from the amnion. Afterwards these patches, which, particularly along that portion of the membrane which invests the cord, assume the appearance of villosities, extend themselves along the other portions of the amnios, in proportion as the blood-vessels which accompany them are developed. They gradually increase in volume: formed at first of a transparent matter, they become at a later period opaque, especially towards their edges, which are elevated a little, and sometimes cause them to resemble in their appearance patches of lichen. At other times, they have quite varied appearances, flattened or filiform, and are sometimes blended one with another so as to become confluent. At their complete development, the patches attain a thickness which sometimes amounts to three or four millimetres; those which are filiform often present a considerable length, and are sometimes enlarged at their extremity in the form of a club. At a later period these hepatic patches of the amnion cease to be developed; at certain points they become yellowish, of a fatty appearance; in other places they fall off and float in the amniotic fluid, and leave on the membrane a kind of cicatrices which afterwards completely disappear.

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*I am only able to give here these limits approximately, by reason of the impossibility of ascertaining the age of those calves which are procured at the shambles.

We can determine with great ease the presence of glycogenic matter in the hepatic patches of the amnion at all periods of their development. From the time when they first appear, it is easy to recognize this matter under the microscope with the aid of iodine. Until the patches are completely developed we can obtain from them their glycogenic matter in large quantities and study its characters. To obtain it easily, the process will consist of digesting the amniotic membrane in boiling water, which will enable the patches to be easily detached for the purpose of rubbing them in a mortar, and extracting the matter from them by boiling, exactly as we proceed for the extraction of glycogenic matter from the liver.

As regards its characters, we may say that the glycogenic matter of the amniotic patches exhibits the most perfect identity with the glycogenic matter of the liver. It is dissolved in the water, giving it a milky appearance; it may be precipitated by alchohol and crystalized by acetic acid. Iodine communicates to it an intense vinous red color, which disappears when heated and reappears on cooling. This coloring of the glycogenic matter of the amniotic patches by iodine takes place not only when the matter has been extracted from the cells by boiling, but it may be observed also in the cells of the organ themselves, as we shall see presently. Like the glycogenic matter of the liver, that of the amniotic patches also changes into dextrine or fermentible sugar (*glucose*) with great ease under the influence of diastatic ferments, both animal and vegetable, and by the action of boiling with strong acids.

While we study the structure and the histological development of the hepatic patches of the fœtus, we can follow out very distinctly the formation of the glycogenic cellules, as well as the development of their contents.

The amniotic membrane in the calf seems to be at first destitute of any well marked epithelium, and we find its tissue chiefly constituted of fibres, of elastic tissue with nuclei contained in a net-work of cells of a fusiform aspect. At the very moment of the appearance of the patches we discern under the microscope on the internal face of the amnios, and continuously along that part of the membrane which invests the umbilical cord, a kind of spots formed of epithelial cells; then in the centre of each spot we observe groups of glandular cells in very small number at first, and soon we are able to observe the patch at its very origin and composed of only one or two glandular cells. We very easily distinguish the glandular or glycogenic from the epithelial cells which accompany them, both by their appearance and by their reaction with iodine. In fact, when we add to an amniotic papillæ or patch on the stage of the microscope a little tincture of iodine acidulated with acetic acid, we soon see the glycogenic cells assume a vinous red tint, while the epithelial cells continue colorless or become faintly yellow. By degrees during development the groups of glycogenic cells increase and assume the form of papillæ, especially on that part of the membrane which invests the cord. Examined under the microscope these papillæ are formed of glycogenic cells, covered with an epithelium; as soon as we add the accidulated tincture of iodine, we see the glycogenic cells of the papillæ colored of a vinous red, especially at their base which is very definitely separated from the surrounding tissue. The hepatic patches are composed of the same elements as the papillæ; it is always difficult to ascertain whether as regards their agglomeration they ought to be considered as consolidated papillæ, or as having another mode of growth. All we are prepared to say is, that we can see them spread in the direction of their circumference, which exhibits well-developed glycogenic cells, while in the centre these cells sometimes appear to be at a less advanced stage of development.

When we bruise the patches or the papillæ and mechanically separate their histological elements, we obtain isolated cells provided with a nucleus, and containing a granular substance: the granular substance is colored wine-red, by the acidulated tincture of iodine; the nucleus, the volume of which seems to me to vary under the influence of reagents, never assumes the same color by the action of iodine. The cells of the hepatic patches of the amnion offer a great resemblance in form and reaction to the cells of the liver in a state of function. In fact, we can isolate both the cells of the amniotic patches and those of the liver by allowing a small portion of the tissue of these organs to macerate for some time in a concentrated alcoholic solution of caustic potash; we then see that the contents of the two orders of cells continue insoluble in this reagent, and fall to the bottom of the liquor in the form of a white deposit which offers under the microscope both the original form of the preserved cells and an amorphous granular matter. When, again, under the microscope, we saturate the excess of potash with crystallizable acetic acid, and afterwards add tincture of iodine, we see the wine-red color appear, and that with greater intensity than when we operate on the fresh cells.

When the hepatic patches of the amnios begin to grow yellow, to fall off, to be absorbed, or to degenerate into fatty matter, we perceive changes in their microscopic structure; the glandular cells in general lose their nucleus at the same time with their glycogenic matter, so that upon treating a fragment of these altered patches with the acidulated tincture of iodine, we see a mixture of cells, some of which assume the wine-red color, while others remain uncolored. It is evident, moreover, that the cells which remain uncolored are destitute of nuclei and of granular contents. We sometimes perceive a transition between these two extremes, that is to say, we see cells in which the nucleus and the granular matter have nearly disappeared, and in which the wine-red color is scarcely perceptible.

A little later, when the patches of the amnios form mere cicatrices, we find only the flat cells, destitute of nuclei, and in which it is impossible to detect the slightest trace of glycogenic matter. These cells at a later period finish by disappearing themselves. When the patches, instead of falling off and disappearing, degenerate into fatty matter, we observe under the microscope the presence of a fatty matter at the same time that we see mixed with it very fine octahedral crystals, which exhibits all the characteristics of oxalate of lime, so far as to be insoluble in water or in acetic acid. It is needless to add that there is, besides, a complete absence of glycogenic matter in these degenerated hepatic patches.

If now we institute an examination of the structural development of the liver, parallel with that which has just been made of the evolution of the glycogenic patches of the amnios, we shall be struck with the constant inverse relation which we observe between the development of the cells of the liver and of those in the amniotic patches.

At the early periods of embryonic life,* when the amniotic patches are well filled with glycogenic matter, it appears that the liver of the fœtus, still very soft, is made up of rudimentary cells, rounded or fusiform, soluble in the alcoholic solution of potash, deriving no color from iodine, and showing none of the characteristics of glycogenic cells. At this period the tissue of the liver does not give the least trace of glycogenic matter.

At the end of their period of growth, when the glycogenic cells of the amniotic patches begin to disappear or degenerate, we find in the liver of the fœtus cells which have acquired their definitive forms as liver cells including one or more nuclei with granular contents, not dissolving in an alcoholic solution of potash, and deriving the wine-red color from the contact of iodine, after we have saturated the alkali with acetic acid. It is at this period that we begin to be able to separate from the liver of the fœtus, which has become more firm, glycogenic matter exactly similar to that which the adult liver produces.

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*At the commencement of embryonic life in the embryo calf while from two to three centimetres long, I have not as yet perceived the amniotic patches. Perhaps, hereafter, glycogenic cells will be discovered in the umbilical vessicle.

Later still, when the patches have entirely disappeared or degenerated into fatty matter, and the fœtus is near the period of its birth, we find that the tissue of the liver, now grown as solid as in the adult animal, is now made up of elements which have assumed their definite form; all the cells of the liver are then filled with glycogenic matter, and at that period we can separate from the liver of the fœtus glycogenic matter, as abundantly as in the best nourished adult animal.

To resume: From all the facts which are contained in this paper, I think we can make the following inferences:

1. There exists in the placenta of the *mammifera*[*] a function which till now had remained unknown, and which appears to take the place of the glycogenic function of the liver, during the earlier periods of embryonic life. This function is located in a glandular or epithelial structure of the placenta, which in certain animals is mixed with the vascular portion of that organ, but which in ruminants appears separate, so as to form on the amnion patches of an epithelial appearance, which every one has doubtless seen but the significance of which has been hitherto unknown.

2. This temporary hepatic organization of the placenta, by permitting us to study directly in an insulated anatomical element the production of glycogenic matter, confirms and completes by a new example that which I have long

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[*] In birds, (the chicken), I have ascertained that before the development of the glycogenic cells of the liver there exist glycogenic cells which are developed in the walls of the vitelline sac; but not having as yet completely followed out their evolutions, I will treat this subject in another communication, confining myself at present to speaking of the *mammifera*.

ago maintained, that the formation of the glycogenic amylaceous matter is a common faculty of the animal and vegetable kingdom. The observations contained in this paper furnish us with further novel analogies, as we see glycogenic amylaceous matter form around the embryo animal, just as in plants it accumulates in their seeds around the embryo vegetable.

3. The glycogenic function in animals commences, then, from the origin of fœtal life, and before the organ in which that function is located in adult life, is developed. But then it is located in a temporary organ belonging to the fœtal appendages.

4. All which has been said in this paper relates exclusively to the *glycogenic* function of the liver; but it will be really a question, to examine whether the *biliary* function which the liver possesses in the adult is equally accomplished by the placentary hepatic organ which we have described. The question should be put in these terms, viz: Whether the same glandular cells are charged with two functions which thence must be consolidated and united; or whether, on the contrary, the liver ought not to be considered rather as a complex organ in which are found mixtures of anatomical elements distinct from one another, and destined, the one for the formation of the amylaceous matter, the other for the biliary secretion? This question, which as yet has not been solved, in spite of the numerous histological labors of which the liver has been the object, appears to me capable of being illustrated and even decided by physiological researches, made on the one hand, on the embryonic developments of the function, and, on the other, upon the inferior animals. I have entered upon some researches on this subject, of which I will give an account to the Academy as soon as they shall be terminated.

EDITORIAL AND MISCELLANEOUS.

YELLOW FEVER IN NEW ORLEANS.

If there has heretofore been any doubt in the public mind as to the origin of yellow fever in our midst, it seems to us that the consideration of very a few of the facts connected with its late appearance must set every doubt at rest. While we have never uttered a syllable against the existing quarantine below our city—being, indeed, anxious to see the experiment thoroughly tested—we have never been able to bring our mind to the conclusion that yellow fever never originates here, but is absolutely imported. We have always thought that we observed facts enough to satisfy any unbiased mind of the capability of our city to originate the disease—indeed we have calmly looked upon what we were obliged to admit was its origin in our midst; yet we have carefully avoided entering into mixed controversies on the subject, believing that facts alone should be recorded as evidence. For the present season, then, we propose to place before the readers of our Journal, a very few facts—more than willing that each one should draw therefrom his own deductions.

First—We call attention to the fact, that the first death by yellow fever, reported to the Board of Health this season, occurred on the 29th of September. This man came down the river, from Vicksburg, and a note on the Board of Health reports says, that he was sick when he arrived. From all we can learn by personal inquiry, we entertain no doubt of the case having been yellow fever, but we give New Orleans the benefit of his having been sick when he arrived, and pass on to the case of Joseph Cooper, which, as will be seen, is entitled to precedence after all.

Dr. Hart, City Physician, has kindly furnished us with the data of this case, as follows :

Joseph Cooper, native of Pittsburg, aged 17 years, arrived in New Orleans, from Pittsburg, on the 10th of September, on the steamer Camden. Having no means of procuring lodging he was forced to sleep among the cotton bales on the levee the first night of his arrival. Early next morning he was found there by the police, and was carried to the "lock-up." That day (the day after his arrival) he was brought before the Recorder, and was sent to the workhouse as a vagrant. A day or two after he was seized with a chill, followed by high fever, and on the following day his symptoms were those of yellow fever. On the sixth day after his admission into the workhouse, he died with black vomit—the case presenting all the characteristics of genuine yellow fever. Dr. Hart has practised in this city a great number of years, and his acquaintance with this disease is too intimate to allow us to doubt his diagnosis. He gives us, too, the following account of other cases :

Stephen Price, wife, two daughters and one son, arrived from Cincinnati on the 25th of September. Some days thereafter the eldest daughter was taken sick, and the following day the other daughter was taken. A priest, who was called in, gave them some patent pills. The next day Dr. Hart was called in, and lying on an old bed were the mother and two daughters, with clearly defined yellow fever. He commenced a course of simple treatment, but in a day or two he found they were all suffering so much for proper attention, that he advised the removal of the children to the hospital. The mother had the disease severely, but recovered sufficiently to sit up again. A few days after Dr.

H. ceased visiting this woman, we were called one morning in a great hurry to see a patient said to be dying. On our arrival we found the woman dead. She had aborted a four months fœtus about three or four hours previously, and sank under the consequent hemorrhage. From the husband we now learned that this was Dr. Hart's case, and he also told us that one of his daughters had died at the hospital, and that the other was expected to die. This woman and family had gone from the steamboat on which they arrived, to the boarding house of Duffy, on Girod street, about midway between Tchoupitoulas and Levee, and here the mother and children were taken sick. This boarding house is located in a true yellow fever region, according to all experience here. Certainly there is filth and impure air enough to originate any and all diseases.

We now give the notes of the first case that came under our own observation:

Mrs. M.—young married woman, native of the Lake Shore, Mississippi—living on the New Basin, sent for us on the 14th of October. We found that she had been sick three days, and we have never in our life seen a more thoroughly marked case of yellow fever. We attended her during nine or ten days, and she had every grave symptom except black vomit. Her recovery was complete, but really unexpected. The patient had spent her first summer here, and had been remarkably careful in her habits. She had been down into the city shopping a few times during the summer, and went to church on Sundays, but spent far the greater part of her time in her room, sewing. She had been in contact with no shipping, and there were no other cases of fever in the neighborhood.

If the cases detailed did not take the fever as the result of causes originating here in our midst, will some skeptic furnish us the source whence they did derive it?

Our mortality reports show a total of 86 deaths by yellow fever thus far (Nov. 23), and, so far as we can ascertain, all seem to have occurred amongst the lower classes, and the great majority of these new comers to our city. Our travelling population all returned to our city while the mortality was at its highest point, and while there had as yet been no real cold weather, yet there was no spread of the disease from the sphere in which it originated. The appearance of this disease here so late in the season, and in the manner we have pointed out, affords ample "food for reflection"—more especially on the part of those who believe that it is always imported into our midst, and that there is no power in our own atmosphere to originate it. For our own part, we long to see the day when all money, and all efforts, of whatever kind, will be earnestly applied to the drainage of our city, and sanitary regulations of every reasonable description. Then, and then only, shall we hope for the exclusion of yellow fever.

Fees for Medical Services.—In the last number of the *North American Medico-chirurgical Review* we notice a very interesting editorial on the subject of fees for medical services, the perusal of which would do good, if the article could be brought before the popular eye. While many liberal minds will condemn the man who degrades himself and his profession by underbidding all his brethren around him for the sake of "getting into practice," no liberal mind can for one moment object to the course of the medical man, who, having attained eminence in one or more branches of medicine by strenuous and honorable exertions, demands more liberal compensation for his superior services. We have always been at a loss to conceive why the medical man who labors to achieve superior skill should not be entitled to higher rates of compensation, if he chooses to demand the same. In this respect, place him only on a level with the drone, and you strike a direct blow at the very noblest of enterprises, for it is but human, (and indeed, but right) to feel that greater exertions are to meet greater rewards. Does the lawyer of eminence work for $5 fees? Does the tailor who has acquired the reputation of making "a good fit" and doing good work charge the same prices as his fellow-tailor who has no reputation? Aye, does the eminent divine, whose mission on earth is the saving of men's souls, preach for the same price as the so-called "saddle-bags preacher?" Or, will this community, for instance, be willing to pay the latter the same price as the former? And, unless the community positively acquiesced in the superiority of these different individuals, could any one of them demand such increased pay? These questions answer themselves in terms which must carry conviction to the heart of the medical laborer that his increased skill and increased knowledge are entitled to increased pay. What the limit of that pay is to be, only his own sense of propriety can determine. Let him show himself lost to propriety, in his too great zeal to acquire money, and the community will regulate him by reducing his patronage. It is one of the distinguishing characteristics of medical men that they are ever as ready to serve the poor as the rich; more than any other men are they willing to work without money and without price; but he or she who is able to pay the full value of services received at the hands of him who has rendered himself most capable of dispensing the same, must expect to pay. Had such a person his or her pecuniary all at stake, he or she would seek aid at the hands of the most eminent counsel, and without regard to cost; but the poor man's all may be at stake, and the cost necessarily drives him from such counsel: he must seek one more obscure, if not less able—one who will charge him less for the service rendered. Why, then, shall the eminent physician or surgeon be forced to charge so much per visit or consultation, and rich and poor alike; or why shall he be restricted to prices for his superior services claimed as readily by the merest tyro or drone in his profession? There must be much of pleasure in the reflection that he has reached a point of true eminence in his profession, but the exertion to realize that reflection will always be greater if the laborer knows that his pecuniary reward is to be in just proportion. Such is one of the demands of human nature.

SUICIDE BY LAUDANUM—*Interesting Autopsy.*—Through the polite attention of Dr. Hart, City Physician, we have here furnished an account of a recent suicide by laudanum—an abstract of which we give:

Dr. H. was called on the morning of the 5th of October to examine the body of a robust young negro man, who had died rather unaccountably. No trace of disease could be found in any of the more important viscera of the body. A few ecchymosed spots in the mucous membrane of the stomach constituted the sum of abnormal appearances. The negro was a type of healthy anatomy. The spots referred to were most probably post-mortem results, as he died some fifteen hours previous to the autopsy.

The circumstantial evidence attending the case, however, points to the cause of death. As soon as found sick (his symptoms being those of drowsiness and indifference) a physician was called in, and the symptoms, together with the fact of there being found by his side, an ounce phial, supposed, from the odor, to have contained laudanum, led him to administer an emetic. No effect followed, and another physician was called. The patient was now fully comatose, and no remedies producing any effect, he died in about four hours from the time he was supposed to have swallowed the laudanum.

At the autopsy Dr. Hart found no trace of laudanum—not even the odor of the drug. He concludes that there was complete absorption of the ounce swallowed.

Subsequent to the autopsy, the case being before the legal authorities, evidence was elicited to the effect that the deceased had very recently quarrelled with his sweetheart, they parting with the avowal on her part that she would never have anything more to do with him.

IODINE AND PARALYSIS.—An esteemed correspondent asks us the following question:

"Does iodine, when taken to excess, or in poisonous quantities, ever give rise to paralysis?"

Our own experience does not afford an instance of the kind. Any affirmative information on this subject will be thankfully received.

THE MEDICAL SCHOOL AT MOBILE.—From some cause or other (we suppose it was accidental), we have never received the circular of the new Medical School established at Mobile. From our exchanges only, have we been able to learn anything connected with the institution. However, our interest in the success of the institution is no less on this account. From all we can learn, the Faculty is composed of the best material, and the outfit of the establishment is on the most liberal scale. Such an enterprise deserves success, and we understand the first session has opened under the most favorable auspices, there being a good class in attendance. Having recently passed through the ordeal of placing a like institution on a firm basis, and, therefore, being thoroughly conversant with all the obstacles, natural and factitious, which belong to the undertaking, we have a peculiar right to the exercise of a sort of fellow-feeling, and, willingly availing ourselves of that right, we cheerfully give expression to it. We cordially extend the right hand of fellowship to our Mobile friends, then, and wish them the fullest measure of success. We can not regard them as opponents—no, not even as rivals: they are truly but coadjutors in the great and good cause of developing our own resources and keeping our Southern youth at home, where we are sure they can be more thoroughly educated than elsewhere.

PAP.—Two English doctors are quarrelling in the pages of the *Medical Times and Gazette* about pap. One, Dr. Barker, has written a book, it seems, in which he gives nine different formulæ for making pap; the other, Mr. Chavasse, claims that Dr. B. has invaded his rights by using four formulæ which he claims as original with him, and hence a suit for damages. Dr. Barker defends himself in the *Gazette* by laying no claim whatever to any of the nine formulæ, and offers to expunge from his next edition the four claimed by Mr. Chavasse; also, to write a short essay on the history of pap, in which he will endeavor to do Mr. C. the amplest justice. Verily, we think these gentlemen (more especially Mr. C.), must be merging on their second childhood, and are again in want of pap.

PROF. FLINT'S PRIVATE COURSE OF INSTRUCTION.—In addition to his regular duties in the School, Prof. Flint is instructing private classes in the art of physical diagnosis. He has already three classes (twelve pupils in each), and is organizing a fourth. We are happy to see both graduates and undergraduates seeking his valuable instruction, as they must derive great advantages at the hands of one who is so capable of teaching.

Report of Deaths in the City of New Orleans, from June 20 to November 21, 1859.—In order to keep our record of the city mortality as complete as possible, we now publish all the reports omitted during the Summer. Our last report was up to June 20.

For Week ending June 27, 1859—Men, 38; women, 20; boys, 31; girls, 38; adults, 58; children, 69; males, 69; females, 58: total, 127. Consumption, 11; infantile convulsions, 10; infantile marasmus, 5; teething, 5; still-born, 5.

For Week ending July 3.—Men, 45; women, 16; boys, 38; girls, 39; adults, 61; children, 77; males, 83; females, 55: total, 138. Consumption, 15; infantile convulsions, 7; chronic diarrhœa, 9; diphtheria, 6; enteritis, 8; gastro-enteritis, 8; teething, 8; still-born, 2.

For Week ending July 10.—Men, 47; women, 16; boys, 38; girls, 30; adults, 63; children, 68; males, 85; females, 46: total, 131. Consumption, 20; chronic diarrhœa, 8; diphtheria, 7; teething, 6; still-born, 7.

For Week ending July 17.—Men, 46; women, 12; boys, 47; girls, 43; adults, 58; children, 90; males, 93; females, 55: total, 148. Consumption, 13; infantile convulsions, 13; chronic diarrhœa, 7; diphtheria, 12; typhoid fever, 6; teething, 12; still-born, 8.

For Week ending July 24.—Men, 44; women, 22; boys, 41; girls, 37; adults, 66; children, 78; males, 85; females, 59; total, 144. Consumption, 14; infantile convulsions, 11; chronic diarrhœa, 8; diphtheria, 6; congestive fever, 8; typhoid fever, 5; teething, 10; still-born, 6.

For Week ending August 1.—Men, 54; women, 20; boys, 38; girls, 28; adults, 78; children, 66; males, 88; females, 52: total, 140. Consumption, 16; infantile convulsions, 12; chronic diarrhœa, 8; congestive fever, 7: teething, 8: still-born, 7.

For Week ending August 8.—Men, 49: women, 22; boys, 29; girls, 31; adults, 71: children, 60: males, 78. females, 53: total, 131. Consumption, 14: chronic diarrhœa, 11: dysentery, 7: congestive fever, 8: teething, 5: still-born, 3.

For Week ending August 14.—Men, 42; women, 15; boys, 31; girls, 28; adults, 57; children, 59; males, 73; females, 43: total, 116. Consumption, 7: infantile convulsions, 7; chronic diarrhœa, 8; congestive fever, 8; scarlet fever, 6; typhoid fever, 7; infantile marasmus, 6; teething, 5; still-born, 8.

For Week ending August 21.—Men, 44; women, 25; boys, 26; girls, 31: adults, 69; children, 57; males, 70; females, 58: total, 126. Consumption, 14; infantile convulsions, 7; diptheria, 7; enteritis, 7; congestive fever, 5; typhoid fever, 5; teething, 6; trismus mascentium, 6; still-born, 3.

For Week ending August 28.—Men, 54; women, 19; boys, 31; girls, 26; adults, 63; children, 57; males, 85; females, 45: total, 130. Consumption, 14; infantile convulsions, 12; chronic diarrhœa, 8; typhoid fever, 8; still-born, 6.

For Week ending September 4.—Men, 48: Women, 16: boys, 32: girls, 20: adults, 64: children, 61: males, 80: females, 45: total, 125. Consumption, 17: infantile convulsions, 11: chronic diarrhœa, 5; diphtheria, 9 :] congestive fever, 6 : trismus nascentium, 5 . still-born, 12.

For Week ending September 11.—Men, 48 : women, 22 : boys, 21 : girls, 24 : adults, 70 ; children 45 : males, 69 : females, 46—total, 115. Consumption, 10 : infantile convulsions, 7 : dropsy, 5 : drowned, 5 : congestive fever, 15 : still-born, 4.

For Week ending September 18.—Men, 58 : women, 30 : boys, 29 : girls, 39 : adults, 88 : children, 68 : males, 88 : females, 68—total, 156. Consumption, 17 : congestion of brain, 7 : infantile convulsions, 8 : chronic diarrhœa, 6: chronic dysentery, 8: congestive fever, 21 ; sunstroke, 5: teething, 6 : trismus nascentium, 6 : still-born, 8.

For Week ending September 25.—Men, 59 : women, 20 : boys, 34 · girls, 22 : adults, 79 : children, 56 : males, 93: females, 42—total, 135. Consumption, 19 : infantile convulsions, 6 : chronic dysentery, 6 : bilious fever, 5 ; congestive fever, 12 ; typhoid fever, 5 : trismus nascentium, 8 ; still-born, 4.

For Week ending October 2.—Men, 46 ; women, 23 ; boys, 29 ; girls, 27 ; adults, 69 ; children, 56 : males, 75 : females, 50—total, 125. Consumption, 14 ; infantile convulsions, 7 ; chronic Dysentery, 5 ; congestive fever, 12 : still-born, 11.

In this week, September 29th, the first case of yellow fever is reported to the Board of Health.

For Week ending Oct. 9.—Men, 55 ; women, 27 ; boys, 32 ; girls, 42 ; adults, 82 ; children, 74 ; males, 87 ; females, 69 : total, 156. Consumption, 21 ; infantile convulsions, 12 ; delirium tremens, 6 ; chronic diarrhœa, 8 ; congestive fever, 11 ; yellow fever, 9 ; trismus nascentium, 8 ; still-born, 10.

For Week ending Oct. 16.—Men, 57 ; women, 36 ; boys, 32; girls, 32; adults, 93; children, 64; males, 89; females, 68: total, 157. Consumption, 24; infantile convulsions, 11; dropsy, 5; congestive fever, 15; typhoid fever, 7; yellow fever, 17; still-born, 10.

For Week ending Oct. 24.—Men, 47; women, 21; boys, 33; girls, 24; adults, 68; children, 57; males, 80; females, 45: total, 125. Consumption, 10; infantile convulsions, 9; congestive fever, 10; yellow fever, 8; trismus nascentium, 8; still-born, 8.

For Week ending Oct. 30.—Men, 83; women, 24; boys, 33; girls, 33; adults, 107; children, 66; males, 116; females, 57; total, 173. Consumption, 21; infantile convulsions, 5; chronic diarrhœa, 8; dysentery, 5; diphtheria, 9; typhoid fever, 14; yellow fever, 25; trismus nascentium, 10; teething, 7; still-born, 7.

For Week ending Nov. 6.—Men, 81; women, 29; boys, 51; girls, 28; adults, 110; children, 79; males, 132; females, 57: total, 189. Consumption, 26; apoplexy, 5; congestion of brain, 6; infantile convulsions, 6; chronic diarrhœa, 5; dropsy, 7; chronic dysentery, 10; typhoid fever, 11; yellow fever, 17, infantile marasmus, 5; teething, 5; trismus nascentium, 7; still-born, 8.

For Week ending Nov. 14.—Men, 64; women, 33; boys, 17; girls, 31; adults, 97; children, 48; males, 87; females, 58: total, 145. Consumption, 17; chronic diarrhœa, 10; chronic dysentery, 8; typhoid fever, 10; yellow fever, 3; disease of heart, 5; inflammation of lungs, 9; infantile marasmus, 5; trismus nascentium, 5; still-born, 10.

For Week ending Nov. 21.—Men, 67; women, 31; boys, 31; girls, 38; adults, 98; children, 66; males, 98; females, 66: total, 164. Consumption, 25; congestion of brain, 6; infantile convulsions, 11; chronic diarrhœa, 12;

chronic dysentery, 7; yellow fever, 6; inflammation of lungs, 5; teething, 6; still-born, 11.

In mentioning the principal diseases of each week, we have assumed 5 as the standard. When the number of deaths by any disease is below 5, we find many other diseases equally fatal, and hence the assumption of this standard.

The total mortality for twenty-two weeks is 3,106, or an average of about 141. The highest mortality was in the week ending Nov. 6, when 189 persons died. The lowest mortality was in the week ending Sept. 11, when 115 died. The most destructive disease has been consumption, which supplies a total of 359, or 16½ a week—the highest weekly mortality being 26, and the lowest 7. The highest mortality occurred in the week ending November 6. Again, we call attention to the fact that the great majority of these cases are persons who come from a more northern region with the disease, under the impression that our milder climate is more suitable for them—one of the most serious errors in the world.

The next most fatal disease has been congestive fever—it furnishing a mortality of 138 in thirteen weeks, or an average of 10½—the highest range being 21, and the lowest 5. The next disease in importance is infantile convulsions—the mortality for eleven weeks being 107, or nearly 10 average. Typhoid fever is, also, seen to be ranging higher than usual: indeed the disease is becoming more common every day. Diptheria too, has furnished a goodly list, and shows that it still lingers in our midst.

Again, we call attention to the long list of *still-born*. In 22 weeks we have 157 still-born children, or an average of 7 a week. At this rate there is a still-born child for every day in the year in this city!—This is certainly not occurring in the hands of medical men—at least we have every reason to believe so. If it were, it would be a burning disgrace to the profession; but occurring, as we have every reason to believe, chiefly in the hands of ignorant, old midwives—it becomes a stain on the community to permit such a state of things.

Notwithstanding there has been no epidemic of yellow fever this year, it cannot be claimed that we have had a healthy season, and the facts which are summed up in this cursory report, would seem to every candid mind sufficient to arouse our people to exertion to improve the condition of our city.

THE PHYSICIAN'S HAND-BOOK OF PRACTICE FOR 1860. *By William Elmer, M. D., and Louis Elsberg, M. D. New York: W. A. Townsend & Co.*, 1860.

Under the above title we have here presented to us a little book, which appears better calculated to fulfill its object than any other of the so-called physician's visiting books. It contains a classification of diseases; Dr. Marshall Hall's Ready Method in Asphyxia; Medicinal Weights and Measures; a compendium of Materia Medica, with their doses and properties in alphabetical order; a list of Incompatibles; Medicinal Baths; a list of Poisons and their Treatment; a short treatise on the Diagnosis of the Urine; and, finally, 190 pages of blank leaves for recording names and number of visits for every day in the year: the whole so arranged as to serve at once for a day-book and ledger. We cheerfully recommend this Diary to our readers, and feel assured they will thank us for the suggestion. We are indebted to Messrs. J. C. Morgan & Co. for a copy.

LIST OF PAYMENTS TO NOV. 25, 1859.—Drs. J. F. Harrington, vol. 7, $5—H. Van Antwerp, to date, $7 50—J. L. Alston, vol. 5, $5—W. R. Cook, volume ending Nov., 1860, $5—J. J. Gage, vol. ending Nov., 1860, $5.

Again we ask our friends to remit the money they owe us. All we ask is enough to pay the printer. We expect our reward hereafter.

Miasmatic Hæmaturia.—As we are going to press we receive one or two valuable communications on this subject, which shall appear in our January number.

EXCERPTA.

Removal of seven inches of the shaft of Tibia—Reproduction of Bone—Fracture of the New Bone—Neglected Fracture—Operation—Recovery. *By* E. S. Cooper, M.D.; *Professor of Anatomy and Surgery in the Medical Department of the University of the Pacific, San Francisco.*—John Williams, æt. 28, had suffered constant pain in the right tibia for seventeen years; for six months prior to his consulting me had been able to walk but little.

When I first saw him the upper part of the tibia was greatly enlarged, and tender to the touch. The history of the case, together with its presenting symptoms, convinced me that it was one of suppuration of bone.

Operative Procedure.—The patient having been placed under the influence of chloroform, I made an incision nine inches long, commencing in front and below the tubercle of the tibia, and continuing down its spine. The integument, fascia, and periosteum of the tibia were cut through by the first incision. The tibia was so enlarged and softened as to render it impossible to ascertain by external examination the thickness of the investing soft parts; and the bone itself was so soft that incisions could be made into its substance with as much ease as into a tendon. The middle and part of the upper portion of the tibia was in such a diseased condition as to render its removal absolutely necessary; and the only question with me became, whether I should be guided by precedent, and amputate the limb, or exsect all the diseased bone, and depend for a cure upon reproduction of the part. I decided upon the latter. The periosteum being thickened to four or six times its natural state, and attached loosely to the bone, and having been divided by the first incision, was readily detached from the bone and turned aside with the soft parts, leaving the bone naked for more than seven inches. The tibia was found to be sound near the lower terminus of the incision: the bone was therefore divided at that point with the chain saw. It was also divided at the upper part through the tubercle of the tibia. Though the bone was considerably congested, and parts of several small abscesses were to be seen in the remaining portion of the tibia above, I did not conceive it to be necessary to invade the knee-joint by removing the remaining fragment—for two reasons. *First:* I thought the bone would become healthy by the free outlet that was made from it, and by proper applications to it. *Second:* because complete reproduction of bone is always effected much more rapidly and with much more certainty, if two extremities of bone remain after exsection, than when there is one only. It turned out during the progress of the case that this view was correct.

There was no difficulty in bringing the remaining portion of the tibia into a healthy condition. A large pledget of lint was placed in the wound, occupying the entire space left by the removal of the bone, and the flaps of the soft parts were loosely laid over this without bringing them together, and without trying to make any portion of the wound heal by first intention. A roller was then applied to the limb, as tightly as the patient could conveniently bear it, commencing at the foot, and continuing to above the knee. An evaporating lotion was applied to the part, spir. mind. administered freely, the patient kept upon low diet, and quietly in bed, without having the dressing changed for four or five days. At the end of this time, the wound having begun to suppurate freely, the roller was removed, the evaporating lotion suspended, and a poultice applied to the wound. A more nourishing diet was now allowed. Loose portions of the lint were removed from time to time, but the whole of it was not taken away for more than two weeks after the operation.

This is in accordance with my universal custom in the after-treatment of operations upon the limbs; whether in exsections, or in operations for pseudarthrosis, I never let the wound heal until the bones become covered with healthy granulations. The wound being kept open prevents burrowing of purulent matter, the cause of the greatest suffering and danger in these cases.

In order to bring the surface of the upper fragment of the tibia into a healthy condition, I applied occasionally a weak solution of chloride of lime, attenuated with black lotion, which produced minute exfoliation of bone, from time to time, for three weeks or more, when healthy granulations sprang up and covered the entire bony surface, after which the applications were discontinued.

This case progressed very finely without an unfavorable symptom. At the end of three months the patient could walk five or six hundred yards without the aid of crutches. At the end of four months from the time of the operation the limb possessed so much strength and elasticity that he could walk with the aid of a cane with much facility.

About this time, in hurrying from the house during the passage of a fire engine along the street, he was run over, and the new bone broken. I thought at the time of the injury that the new growth was simply fibrous, not supposing that such an amount of bone could be reproduced in so short a time, and consequently paid little attention to the injury further than the bruises and injuries done to the soft parts seemed to require.

At the end, however, of some months, I ascertained that the reproduced bone had actually been fractured, and being neglected, had resulted in a pseudarthrosis. The patient was not under my immediate supervision all this time. I cut down upon the bone, removed a partially-developed synovial membrane from between the ends of the fragments, and drilling them in two places introduced two silver ligatures, which kept them in apposition until a bony union was effected, which was in about three months. The wires were removed about the tenth week.

It is now nearly five months since the last operation, and the bone is strong, and firm almost as the tibia of the opposite leg. The patient is residing at his home in Camptonville, California, in the enjoyment of good health except slight rheumatism, which has attended him more or less for several years.

Remarks.—I mention the name in full, and place of residence of this patient, with his consent; for the reason that this operation has been censured and caricatured by several of our daily papers, and severely condemned by some of the older (though not necessarily wiser on that account) practitioners of this city and state.

This case is an important one, seeing that it shows the great reproductive power of nature in bone. It is probably the only one on record in which an attempt has been made to save a leg, with so extensive disease of a bone requiring the exsection of so much of its shaft entire. The reproduced bone was smaller at the point of fracture than natural, but more compact, and much harder to drill than bones generally upon which I have operated for pseudarthrosis. Since this last operation it has enlarged, as might be expected, not only at the point of fracture, but also during the entire length of the tibia above.—*St. Louis Med. and Surg. Jour.*

On Local Sweating of the Eyelids—*By Prof.* A. Von Graefe.—During several years' practice, Prof. Graefe has observed this occurrence in four instances to an excessive extent, and in several others in a lesser degree. To superficial observation, these patients appear to be the subjects of an ordinary conjunctivitis, with secondary intermarginal and palpebral excoriation: but the disproportion between the slight degree of the conjunctival irritation and the great amount of secretion on the surface of the eyelid is at once obvious. The outer surface of the lids, and especially of the upper one, is somewhat reddened, and permanently covered with a layer of fluid, the moisture being confined within the limit of the orbital ridge. In the author's first case, immediately after drying the lid, another thin layer of fluid was reproduced, so that with every care the skin could scarcely be kept dry for a few minutes. The fluid at first, too, was quite transparent, and only became turbid some time after its deposit. Examination with a lens showed that it issued from many minute, punctiform apertures in the skin, and gradually collected into drops. When we consider the rich supply of the lids with sudoriferous glands, no surprise need exist at this local ephidrosis. The conjunctivitis in these cases is only secondary, arising from the flowing of the sweat from the upper lids in at the angles of the eyes. In two of the cases the affection was connected with general ephidrosis: all circumstances—such as active movement—inducing especially the sweating of the eyelids. It is an exceedingly obstinate affection, and is liable to be mistaken for conjunctivitis. Local applications—as lead, or nitrate of silver lotions—diminish the secondary irritation of the skin, and temporarily heal up the excoriation induced, but exert no influence on the secretion. Ointments usually increase the evil. In one case, smearing the lids with pix liquida nigra, after healing the excoriation, was very useful. Those general means seem to be of great consequence in this affection which influence the activity of the skin, such as cold bathing, frictions, ect.—*Graefe Archiv.*—*Virginia Med. Journal.*

New Tests for the Kiesteine of Pregnancy—*By* J. B. Hicks, M.D. Lond., F.L.S., etc., *Assistant Physician Accoucheur to Guy's Hospital.*—The time consumed by the usual method of obtaining kiesteine, and the unpleasant odor arising from its decomposition, render it a desideratum to possess a test, which shall hasten its appearance, and increase the quantity deposited from the urine. Into the value of it as a sign of pregnancy, I do not intend at present to enter: but as a readier means of ascertaining its existence will assist investigations on that point, I beg to offer my experience on the action of rennet on urine containing the above-named substance. What the composition of this substance is, as it exists in newly-passed urine, has not been as yet ascertained. There can be scarcely any doubt that the action of the air alters it into a substance very similar to casein, if not identical with it, inasmuch as it is coagulable by rennet, and insoluble in cold acetic acid, and generally by hot. That the substance called by Dr. Starke "gravidine" is another substance seems probable, and may be that which is precipitated out of some urine of pregnancy by a small quantity of acetic acid, though it is generally re-dissolved in from six to twenty hours; or it may be the same substance in varying degrees of alteration. The readiness with which this change takes place, whatever it may be, varies very considerably in pregnant women, and that without any apparent cause. A few hours' exposure to or agitation with air is sufficient to deposit the altered substance; while in others two days are required: and this is not altogether dependent on the period of pregnancy; for I have found a person only four months and a half advanced, yield copious deposit in three hours after passing; while another, at the full term, required within two or three days.

Now, as there is no amorphous deposit thrown down from urine previously clear, within two or three days, which is not easily dissolved by heat (lithates) or by dilute acetic acid (phosphates and carbonates), excepting from that of pregnant women, it is evidently not necessary to wait till the decomposition has gone on to form the white pellicle which ensues upon protracted exposure; but if a deposit takes place varying in color according to that of the urine (but naturally white), unchanged by the above-named tests, then we may safely conclude that the urine contains kiesteine.

This deposit varies from copious troubling to that of small flakes falling to the bottom, and probably results from the natural acid of the urine, or the formation of lactic acid in it, coagulating the newly-altered kiesteine: and the time at which the troubling takes place varies also, probably, with the rapidity with which the change of the air goes on and the condition of acidity.

If, then, we add rennet to urine of pregnancy, we shall find that in nearly every case the deposit above alluded to appears at an earlier date than if it is not employed: in some cases, within an hour (this is uncommon); in others (especially if the urine be recently passed), in from twelve to twenty-four hours. In the majority of instances, the change produced by the above-named agent has been in advance of the usual method by about half the time, and the quantity of the deposit has been decidedly greater.

Now, the greasy-looking pellicle which has always been waited for as a sure sign of kiesteine, consists of a small quantity of amorphous matter (kiesteine); occasionally a few fat-globules, but not constant; numerous crystals of the tripo-phosphate, amorphous carbonate, and phosphate of lime, which incrusts the numerous so-called vibriones, thereby preventing their peculiar movements, till released by the addition of acetic or other acid. All these are produced by the process of decomposition, and form therefore but a crude test, being also somewhat imitated by the decomposition of albuminous and diabetic urine.

Rennet, I have found, has no action on healthy, diabetic, albuminous, or phosphatic urine. A slight deposit sometimes takes place, looking something like mucus: but I think urine giving off but a slight precipitate should be held doubtful in respect of kiesteine.

If, after the deposit is well formed, we add to, say, half an ounce of the turbid urine (taking the lower portions) a few drops of strong solution of ammonia, and boil for a minute or two, we shall find the deposit is formed into a semi-mucous mass, so that the urine becomes almost tremulous. When this occurs, it is, I think, characteristic of kiesteine. It can be produced without boiling, but the change is slower and not so complete. If the deposit be scanty, the above appearance is not so well marked; but, by careful watching, it may be observed amongst the flakes which are formed.

This test for kiesteine can be employed equally well with or without the previous use of rennet. The quantity of phosphates thrown down by the ammonia may be known by adding gradually acetic acid, so as to slightly acidulate. What remains undissolved is the kiesteine.

In employing rennet, I find the best method is to mix about two teaspoonfuls (as described below) with about three ounces of the urine, if it be recently passed; but if it has stood some time, and the kiesteine is about to be deposited, I like to pour it quietly in, so that it may fall to the bottom. The deposit is then clearly shown at the juncture of the two fluids.

Alkaline urine should be accurately neutralized by acetic acid, and should pus be present, it should be allowed to stand, and then be filtered. (However, the rennet semi-gelatinizes pus, so that it is not of very great consequence.) This plan should be adopted in all cases where the urine is turbid, from phosphates, pus, mucus, or extraneous matter.

The chief advantages of the employment of rennet are—

1st. Saving of much time.

2nd. Increase of the deposit.

3rd. The deposit is nearly free from phosphates.

4th. It is nearly free from smell.

The rennet I use is prepared in this way :—Take the fourth stomach of a calf as soon as killed, and scour it well inside and out with salt, so as to remove the curd. Let it drain a few hours. Place it in a wide-mouthed jar, and sprinkle a handful of salt upon it. In a short time the juice will exude and dissolve the salt. Take this and filter through bibulous paper; place it in a bottle, and use as required. That left in the jar will continue to yield a fluid for some time; otherwise, some salt and a small quantity of warm water should be poured over it and allowed to stand a day. Then filter the juice. The stomach may be also filled with salt and sewn up, or it can be stretched on a skin to dry. In the latter case pour warm water upon it, allowing it to stand some hours, adding salt to help to preserve it. The more concentrated the juice is, the better.

Rennet, already salted, may be obtained of almost any butcher.—*Lond. Lancet, Nov.*. 1859.

Wellington-street, London Bridge, Sept., 1859.

Defective Assimilation in Infants—*Its Prevention and Treatment.*—Dr. Routh read a paper on this subject before the Medical Society of London. The object of the paper was to show that most of the mortality of infants was due to defective assimilation. Defective assimilation was almost always the result of the want of breast milk, and the use of injudicious food; the disease was most effectively prevented by supplying this milk. Dr. Routh then detailed the result of breast milk exclusively given, artificial food without breast milk and with it, or the development and mortality of children, from tables of Messrs. Merei and Whitehead—from which he showed that in proportion as breast milk predominated, in proportion was good development observed, and *vice versa*. He then showed that the most frequent diseases amongst children were abdominal diseases, occurring in the proportion of 23.4 per cent.; developmental diseases in that of 8.8 per cent. of all cases; rachitic diseases constituting 3.2 per cent; atrophy or marasmus, 5.2 per cent. He believed, however, that all these were produced by defective assimilation—the former in most cases being sequelæ of it; atrophy or marasmus being only the more marked and characteristic stage.

Dr. Routh then described the disease as consisting of three stages; first, or premonitory, in which peevishness, some loss of flesh, occasional attacks of indigestion, acid eructations, etc., were most prevalent; in the second stage *emaciation* was more marked, eyes became unusually bright, much loss of digestive power, sometimes with diarrhœa, and lieutery; third, or exhaustive stage, generally attended with diarrhœa, aphthæ, frightful emaciation, complete loss of digestion, etc. Sometimes the disease from the second stage passed on to tuberculosis, rachitism, and most developmental disorders and not to the third stage.

Causes.—The predisposing causes were—hereditary tubercular habit, and exanthemata; exciting causes—bad air, want of cleanliness, injudicious food, and especially an atmosphere contaminated by too many children being congregated together.

Post-mortem Appearances.—Three kinds: emaciation very great, loss of adipose, cellular, and muscular tissue, in all varieties; but in one, where diarrhœa has been present, red patches, or aphthæ over the alimentary mucous membrane, these aphthæ often containing the oïdium albicans. In other cases, also with diarrhœa, the mucous membrane exuding a reddish colored mucus, intensely acid. In others, without diarrhœa or with it, Peyer's glands projecting, and enlarged in patches, as in Asiatic cholera. In all, undigested matter in canal, with very fetid fecal matters.

The disease seems to be gradual, passing on to entire loss of *primary* assimilation; the secondary still persisting, although inactive from want of assimilable matters to take up. Albuminous, starchy and oily matters were not digested.

The *treatment* consists in supplying fatty acids and already artificially digested animal, and occasionally vegetable substances, especially human milk. If this could not be sucked, it should be collected in a cup and given by the spoon. Dr. Routh strongly animadverted here upon the absurd dogma, that it is wrong to mix human and cow's milk. He, on the contrary, believed the plan not only safe, but the very best practice in many cases, and the only means of saving an infant's life. Simple juice of meat, and this with vegeto-animal food he had found most useful in fulfilling these indications. The remedies were of two kinds: 1st. Those calculated to increase cell growth and development. Phosphate of soda producing an emulsion with fats, thus allowing of their assimilation; chloride of potassium, to dissolve carbonate of lime; phosphate of lime to enable the blood to take up more carbonic acid, and thus hold in solution more carbonate of lime (these substances severally strengthening muscular and bony structure); lime-water, to provide lime to blood. 2d. These last also acted as some of the remedies calculated to allay local irritation of the alimentary canal. Carminatives were useful, such as dill, but especially cinamon-powder, to correct flatus, and to check diarrhœa. Anodynes were also (however objected to generally) strongly recommended by the author. For the diarrhœa, when present, nitrate of silver and sulphate of copper were the best remedies. Wine was also found very serviceable, even if given in large quantities. These remedies, however, it must be confessed, proved, in most cases, of no avail in the third stage, which was, he might say, almost incurable; but they acted very effectively in the second and first stages.—*Lancet* and *American Journal.*

Quinic Ether.—M. Eissen has recommended in the *Gazette Médicale de Strasbourg*, the use of quinine, introduced into the air passages, for the treatment of intermittent fevers. The process consists in the inhalation of quinic ether—a combination made by M. Manette, and first used by M. Pignacci, of Milan.

The substance, still incompletely defined, in a chemical point of view, is obtained by means of the distillation of alcohol, treated by sulphuric acid (theory of ethers), in presence of the quinate of lime. The product of this distillation is a liquid perfectly limpid, colorless, of an agreeable odor, less volatile than sulphuric ether, but still sufficiently volatile to evaporate at an ordinary temperature, without leaving a deposit. It deserves, then, the name of ether; and its therapeutical action, besides, seems to justify the qualification of quinic which has been given to it.

Quinic ether, says M. Eissen, fills all the necessary conditions of a good therapeutical agent. It acts, at the same time, *tuto cito et jucunde.* Inhaled in the dose of a few grammes (2 to 3), as chloroform is generally employed upon a compress, it checks a commencing access, and prevents a return of subsequent accesses. In all the cases in which it was tried, the access gradually yielded, never to return, when the fever was simple, or under a very mild form, in cases of decided cachexia.

Since the first trial upon patients in Lombardy, who could not be suspected of being slightly affected, other trials have been made by Prof. Groh, at Olmutz, and with the same success. The results have been the same—whether the inhalation was made before or during the pyrexia, the accesss was lessened in character in a marked degree, and the next anticipated access prevented, in the majority of cases—the tumefaction of the spleen disappearing at the same time. The inhalation, far from being disagreeable, was followed by good results, or of a sensation of decided amelioration. We may add that, in their experiments, our learned confrères, whose names we have cited, were careful to establish negative proofs to confirm their judgment. They submitted a certain number of fever patients to inhalations of pure sulphuric ether, or sulphuric ether holding sulphate of quinine in solution. The inhalations of pure ether produced no other effect than that of increasing, in an insupportable manner, the hot stage; while in those taking the ether containing the quinine, some anti-periodic effects were observed, after large quantities of the remedy were absorbed; but in severe cases these effects were so slight, after long trials, that the patients themselves, solicited more energetic measures.—*Amer. Med. Mon.*

BRONCHOPHONY—*Laennec and Skoda.*—Among the doctrines which Skoda holds in opposition to Laennec, his explanation of bronchophony by the theory of consonance holds, as is well known, a prominent place. Markham, the translator of Skoda's work, remarks in his preface, that "whatever may be the fate of this theory, one thing may be fairly predicted to result from Skoda's enunciation of it, and from a consideration of the experiments and reasonings on which he bases it, and that is, a recognition of the fact that Laennec's explanation of bronchophony by the increased sound-conducting power of consolidated pulmonary tissue, is not true, at least in every case." It must be true or false in every case, nevertheless, in principle. A recent writer* on auscultation of the voice, expresses his views in reference to Skoda's "experiments and reasonings," in disproof of Laennec's explanation of bronchophony, as follows: "Skoda appeals in the most unbiassed manner to a few well established principles of natural philosophy, and to a few quite plain experiments instituted by him, to prove beyond a doubt, the utter fallacy of the theory of Laennec, which was adopted throughout France; and it is astonishing how, nearly twenty years since Skoda first opened publicly his contest against Laennec, with weapons no other than sound logic and an unbiassed mind, there should still to this day, here and there, *cis et trans mare*, exist some stragglers of the French army. But every cause, every idea, and every theory, finds its Epigones—be it table-moving, know-nothingism, or some especial Franco-mania."

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* Dr. J. Herzka. N. Y. Journal of Medicine, 1859.

Skoda's admitted disproof of Laennec's views upon this subject, appears to have given rise to a series of fruitless attempts to supply the supposed deficiency in auscultatory science, and thus to secure a prize that eluded the grasp of Laennec himself. Have we, in these repeated failures, an illustration of the principle that "no superstructure can be secure while its basis rests on untruth"? Or was Laennec at fault in his "principles"? The ground will be taken in the present communication, that Skoda furnishes no proof whatever of the "fallacy of Laennec's theory," notwithstanding the alternative presented the writer of being ranked among the "stragglers," "table-movers," etc. And as the asserted disproof of Laennec turns mainly upon the "established principles," it will be unnecessary to regard the experiments of Skoda, which have also been contradicted in their results, by others.

Now, the gist of Skoda's argument consists in the proof he is supposed to have adduced, that air is superior to solid bodies in sound-conducting power, contrary to "the generally received opinion" and that of Laennec, and consequently that healthy lung parenchyma is a better conductor of sound than consolidated lung tissue. The proof that air is the better conductor of sound, is comprised in the following data, or "principles." "The human voice, and every other sound which is formed and propagated in the air, is heard farthest in the air." "A sound in one room passes with difficulty into another." "Any one wishing to weaken his hearing, stops his ears." The ticking of a watch is heard more distinctly through a hollow tube than through a solid cylinder. "It is a remarkable circumstance," Skoda further observes, "that auscultators should make use of a hollow tube, and not solid cylinders, and yet assert that dense bodies are better conductors of sound than air."

It is apparently out of deference to Skoda's statement that "the human voice is heard farthest in the air," that Walsh concedes the superior conducting power of air. "In regard of conduction," he says, "theory would say that as the human voice is best propagated in air, the more the lungs are rarefied, the higher would their conducting power become," etc.

But is it not true, also, that sound formed in a given solid is heard farthest in the solid? "The slightest scratching at one end of a long rod may be heard," says Skoda, "if the ear be brought in contact with the other end; while no sound whatever is audible in the air, although the ear be brought much nearer to that end of the rod whence the sound proceeds." That sound formed in water is heard farthest also in the water, Skoda furnishes the following proof. "The sound formed by striking two stones together, under water, is distinctly heard there, and even causes a disagreeable sensation, while out of the water it can be scarcely recognized." These facts furnish the following statement: sound may be heard in the medium in which it originated, while other media in contact are not sensibly affected at an equal distance, or "sound is heard farthest in the medium in which it is originated." But does the fact that sound formed in the air is heard farthest in the air, that sound formed in a solid is heard farthest in the solid, and that sound formed in water is heard farthest in the water, prove that air is the best conductor? If so, it proves, at the same time, the absurdity that each of the media concerned is the the best conductor. It therefore proves nothing as to their relative conducting power. That constitutes an entirely new and distinct question, which though professing and admitting to have settled, Skoda does not even touch. It appears to be "well established" in acoustics, however, that while sound may be generated and propogated in all elastic media, its velocity and intensity are, other things being equal, directly as the densities of the media it traverses.

But the facts embraced in the above quotations, according to Skoda, not only prove the superior sound-conducting power of air, but also "show that sound does not pass readilly from dense bodies into the air, or from the air into dense bodies." Now, if we understand sound in elastic bodies to mean simply elastic bodies in a state of vibration, the above generalization will admit of the following change of phraseology: dense bodies in a state of sonorous vibration do not readily excite sound in the air, nor do the sonorous vibrations of the air readily generate corresponding vibrations in dense bodies. But do not the vibrations of the bell, the drum, the violin-string, etc., readily excite sound in the air? So readily, in fact, does sound pass from solid bodies into the air, contrary to Skoda, or so easily is the air thrown into sonorous vibrations by the vibrations of solid bodies, that one solid can scarce impinge upon another, without producing sound in the air of some sort. Indeed the vibrations of solid bodies, excited by their mechanical action upon each other, constitute the common (though not universal) source of sound in the air. On the other hand, it appears to be true that sonorous vibrations in the air have but a feeble effect upon solid bodies, or "sound does not pass readily from the air into dense bodies." The vibrations of the bell, excited by the stroke of the tongue, readily excite sonorous vibrations in the air, but the vibrations or sound of the bell in the air, by impinging upon a second bell in immediate proximity with it, may have no perceptible effect upon it. The mechanical action of solids upon each is requisite to the more full development of their sonorous elasticities. The relations of air to solids and of solids to the air, when in a state of sonorous vibration, thus appear to be widely different, though Skoda would have us understand that sound passes with equal difficulty from the air into solids, and from solids into the air. The reason, too, is readily apprehended when we consider that the momenta of sonorous waves, are, other things being equal, like their velocities, or the densities of the media in which they reside, and that it is by the mechanical impulse of these alone that an original sound is re-produced in a new medium.

Nevertheless, the vibrations of solid bodies must have a certain degree of intensity to excite appreciable sound in the air. The vibrations of the rod, generated by slightly scratching one end (a common illustration of the ready propagation of sound through solid bodies, when once originated in them, and instanced by Skoda, ostensibly for the purpose of receiving an explanation in conformity with the views he is endeavoring to establish, which is the vague statement that "no part of the sound passes off from the rod into the surrounding air, but remains wholly concentrated in it") may be too feeble to excite appreciable sound in the air, though they are readily propagated, or "conducted," throughout the rod.

If a "sound in one room passes with difficulty into another," it is evidently because the aërial waves are too feeble in their mechanical impulse to reproduce the sound in the solid walls of the room, not because sound may not be as readily propagated in the walls of the room as in the air, when once established in them. The auscultator uses a hollow tube for the reason that the sound passes from the surface of the chest to the ear more perfectly through one medium, the air in the tube, than through two media, the solid cylinder and column of air between it and the tympanum of the auscultator. Also because the vibrations of the surface of the chest have a greater effect upon the air, than upon the solid cylinder; that is to say, the sound is more easily and perfectly reproduced in the air than in the solid cylinder, air being peculiarly susceptible of sonorous vibrations from solids, on account of its relative density and specific elasticity. The establishment of sound in the air and cylinder is, however, a very different thing from the propagation, or conduction of the sound, after being generated in them. The sound will pass the rod with the greatest rapidity and intensity, though greater mechanical force is requisite for its generation in the rod than in the air.

In short, every fact adduced by Skoda in proof of the superior conducting power of air, relates simply to the general proposition, that sound is heard farthest in the medium in which it is originated: or, as a corollary to it, that sound passes more perfectly from one given point to another through a single medium than through two media. Nor do "the experiments and reasonings" of Skoda determine anything as to the relative conducting power of different media. It may be well to have the confirmation of this statement from Skoda himself. "The difference in the conducting power of air, wood and other bodies," says he, "has not been experimentally determined." Nothing then, most certainly has been determined against Laennec's views upon this subject.

ACONITE IN TRAUMATIC NEURALGIA—*To the Editor of the Medical Times and Gazette.*—Sir: If the enclosed case possesses any interest I shall be obliged by your giving it a place in the *Medical Times and Gazette:*

Mr. B. came to me early in August, complaining of acute pain in the left arm, extending from the thumb to the shoulders, in the course of the musculo-spiral nerve. He had, by accident, almost severed the top from the thumb, the nail was apparently dead, and the flesh did not present a very promising aspect. I placed the parts in apposition, and kept them so, in a few days union was complete.

I thought I was now done with him, but not so; for he came back very shortly with excruciating pain shooting from the thumb over the inner condyle of the humerus, and from thence crossing the biceps above, and penetrating also the muscles on the back of the arm till it reached the shoulder-joint. At first I thought there was some inflammation extending through the lymphatics, but on uncovering the arm there was no swelling, redness, or tenderness on pressure to be found along the track of pain. He was a nervous person, of lymphatic temperament, and seemed much afraid of his arm. However, as it was the left member his business was not interfered with. He was ordered a rhubarb draught with sulphate of potass, etc., and a liniment composed of equal parts of chloroform, anodyne, and soap liniments, which he was to rub assiduously over the seat of pain. A flannel roller was applied over the arm, and a narcotic provided for use. The next morning he looked very mournful, indeed; he was peevish, irritable, evidently in great pain, and had passed a restless night. The use of the actual cautery and electricity were proposed. He did not relish either. I did not expect to see him again, and some days passed before he made a re-appearance. During the interim his liniment was used, and he now visited me for another purpose. I inquired how the arm went on. It was worse than before. Again, the arm was exposed and carefully examined, the only conclusion I could arrive at was, that the nerve had been injured; aconite in tincture was painted over the track, allowed to dry, and applied a second time.

In a short time he came to consult me for an attack of sore throat, and I was not a little surprised to find that all his sufferings from the arm were at an end. The limb was benumbed by the remedy, but no return of pain was experienced. I had used, and seen aconic used, scores of times for rheumatic and other pains about the chest, but had not any idea of its efficacy in a case like the present. The tincture of the root is generally light in color: what I used was of a dark brown, and, to judge from the effect produced, excellent. It certainly deserves a more extended trial. In cases of facial pain it acts well, when combined with belladona, and forms a very useful application when mixed with equal parts of chloroform and anodyne liniment.

I am, etc.,

Henry Usher, B. A. M. A. (late of the Royal Navy.)

4 Winchester place, Pembridge Villas,
Notting hill, August 20.

Miss Martineau on Infant Mortality.—The fact is proved that in England 100,000 persons die needlessly every year, and of this number 40,000 are children under five years of age. Of all the infants born in England, above 40 per cent. die before they are five years old. Yet, what creature is so tenacious of life as a baby? Those who know the creature best say they never despair of an infant's life while it breathes, and most of us have witnessed some recoveries, which are called miraculous. There is also no creature so easily manageable as an infant, so easily kept healthy and happy, merely by not interfering with the natural course of things. How, then, can this prodigious amount of killing go on in a country where infanticide is not an institution? It is precisely because the natural course of things is interfered with that infants die as they do. Nature provides their first food; and if they do not get it whose fault is it? The great majority of mothers must be naturally able to nurse their own infants. Poor women do it as a matter of course: and, if gentlewomen did it as simply and naturally, that one change would largely modify the average of deaths. Gentlewomen may not be aware of this because the doctor is complaisant in bringing a wet nurse, and the indolent mother is unaware that her own infant probably suffers, though it does not die, from being put to the wrong breast, while it never enters her head that the nurse's baby probably dies. If, of the 40 per cent. of English infants who die yearly, we could know how many are the children of wet nurses, the fact might startle the fine ladies who suborne the mothers, and might bring no small amount of reproach on the complaisant doctors. When the kind of food is changed nature is still far from being deferred to as she ought.

Hygienic Treatment of Diabetes.—M. Bouchardat, in his treatment of this disease, advises that remedial agents should not be resorted to until after a full and complete trial has been made of all the plans which he suggests in the way of diet, exercise, and clothing, etc. The following are the rules which he prescribes in carrying out this object: *Food*—The first rule to observe in the dieting of a diabetic patient is the suppression or diminishing of the quantity usually taken of feculent foods; this forms the basis of the treatment. Bread, pastry, rice, maize, and other grains, are to be proscribed; so also, radishes, potatoes, arrowroot, vermicelli, semola, maccaroni, haricots, peas, lentils, beans, chestnuts, preserves, etc. The exclusion of saccharine food should be even more rigorously enforced. The following are the principal of the foods which may be taken: every kind of meats, boiled, or grilled, or roasted, or dressed with any kind of sauce to stimulate the appetite, provided there be no farina admitted. Liver and gelatinous parts should not be taken. Fishes of every kind may be taken; so, also oysters, lobsters, frogs, prawns, etc. Eggs are highly useful. Milk is prejudicial, but fresh cream may be taken. Cheese also is useful. Many kind of legumes may be admitted, but in their preparation much oil, or butter, or fat should be used; the yolk of egg and cream replacing farina in the sauces. Truffles and mushroons are good. From time to time moderate quantities may be indulged in, of apples, pears, cherries, strawberries, but without any sugar, and when the urine is free from sugar. For seventeen years M. Bouchardat has employed gluten bread, and its utility cannot be denied. He does not consider this bread as the remedy for diabetes, but only as a means of replacing bread without inconvenience to the patient. Some, though only very few, patients support well the deprivation of bread, and for such persons gluten bread is not required. *Drink:* Wine is of great importance, and M. Bouchardat considers that the replacing of the feculent food by alcoholic drinks is as important as the absence from feculent foods. He prefers the red Burgundy and Bordeaux wines; but all red wines, which are more astringent than sweet, do equally well. In the twenty-four hours he gives a *litre* or more. Beer is very bad on account of the dextrine in it. Sweet liquors are proscribed, but a *petit verre* of rum or brandy is admissible with the chief meal of the day. Coffee, also, is useful—of course without sugar—brandy or cream being added to it; but all drinks should be taken in great moderation. Bordeaux wine allays the thirst of the diabetic better than any other liquid. Lemonade, etc., which are taken with so much avidity, are prejudicial; they do not allay thirst better than water, and they in part saturate the free alkali of the blood. M. Bouchardat utterly proscribes their use. Patients should also eat moderately, both to prevent indigestion and to favor the return of the stomach to its natural size. As regards *Clothing:* Chills are always hurtful, and flannel should be therefore worn constantly, and over the whole body. *Exercise* should be taken as soon as ever the patient is strong enough; the amount of it being regulated by the strength of the patient. The regimen prescribed ought to be given up, even when the sugar has disappeared from the urine, only very gradually. In such case, the quantity of the calorific foods should be increased. Normandy butter and cod liver oil should be given when baths or sea-bathing is resorted to.—*Clinique Européene.*

Remarkable Case of Adipocere.—Dr. Dalton presented a body which had undergone complete transformation into adipocere. As far as could be ascertained, the body was buried in 1832. It was found in a cemetery, or rather a pit, in the upper part of the city, which was dug out for the reception of cholera patients. The bodies were placed in separate coffins, but not in separate graves. The coffin containing this body was found about twenty feet beneath the surface; underneath it there were three tiers of coffins, and above it nine or ten. The uppermost tier of coffins were covered by three or four feet of solid earth. The soil directly under the coffin in which the body was found was very watery; above this level there was but little water, although the ground was very moist. The bones of the bodies contained in this pit, and in some cases the tendons, were melted together in a semi-fluid mass, the usual result of decomposition under ordinary circumstancs.

At the water mark there were several bodies converted into this adipocere. The specimen presented, however, was the most perfect. The hands and feet have been rattled off during transportation. When the body was first taken out, its color was almost precisely the same as now (a dullish white)—if anything, it has become a little more brownish. It has now been exposed to the air for three months. Its consistency was decidedly less when first removed; it was then like cheese of medium consistency, a mixture of the ductile and the brittle. In handling it, great care had to be used. At that time it exhaled a tolerably strong odor, partly cheesy, ammoniacal, and earthy. Since that time the cheesy and the earthy odors have disappeared; the ammoniacal smell, however, is still perceptible. In other respects it appears not to be altered in the least, and Dr. Dalton presumes it will remain in the same condition for years, for centuries, if properly taken care of.

The body is that of a large fat woman, between forty-five and fifty years of age, evidently a woman past the prime of life. The anterior parieties have sunk very much, particularly those of the abdomen, which appear to be in contact with the spinal column. The anterior portion of the chest is also collapsed. The change of animal tissue to the adipocere is absolutely complete in all the tissues, except the hair, nails, and bones. The papillæ of the skin can be distinguished, but the other tissues cannot be made out.

The substance of which this mass is composed is known by the name of adipocere, or, as the French call it, "*graisse de cadavre*" (fat of dead bodies). It is exceedingly light, so that one can easily raise the whole subject.

It is somewhat curious that the bodies which are reported as having undergone this degeneration have been interred under precisely the same circumstances. The first case was observed in a similar pit at a cemetery in Paris.

The chemical composition of the substance is such, that it is regarded as an ammoniacal soap, sometimes soap composed of ammonía and lime, in other instances almost exclusively a lime-soap. Orfila and Fourcroy, who had paid particular attention to this subject, assert that at first it is almost exclusively ammoniacal, the ammonia being supplied by the decomposition of the nitrogenized muscular tissue. This unites with the fat coming from the adipose tissue, which has become rancid, and produces an ammoniacal soap. Some French chemists regard it as a transformation of the muscles into oleic acid, so that adipocere may be produced simple decomposition of the muscular tissue. The more generally received opinion is that it is simple decomposition of the muscular tissue into ammonia, which unites with the fat of the adipose tissue. This opinion is favored by the fact, that in almost every instance of this kind the bodies are those of extremely fat persons. Such was the fact in a case, the only case of this kind which Dr. Dalton has previously seen, where the body was that of an enormously fat man. Another reason which makes it probable that the fat must come from the adipose tissue is that, as Orfila ascertained, adipocere does not take place when the animal matter consists of muscular tissue only.

A body buried by itself will rarely be converted into adipocere, because the ammonia compounds produced by the decomposition of the muscular substance are dissolved in the fluids of the body, and these fluids absorbed by the soil, and do not unite with the fats so as to form adipocere. But if a body is surrounded by other bodies, the bodies above decomposing, produce ammoniacal fluids. These being washed down by the rain, filter through to the ninth or tenth coffin, the water of course in its descent becoming more and more loaded with ammonia, and this uniting with the fat of the lowermost bodies, produces adipocere. The bodies under the surface of the water do not undergo the transformation, probably because the substance is soluble in water.

This material of which the body is composed is very inflammable. A piece put on charcoal, placed before the flame of the blow-pipe, takes fire, and is consumed readily, leaving scarcely any appreciable residue.

ON THE TREATMENT OF DIPHTHERITIC SORE-THROAT—*By* C. SWABY SMITH, Esq., M.R.C.S.E., *Wilts.*—I have for some time past carefully perused the various remedies that have been adopted in diphtheritic sore throat. As this disease has of late been so prevalent, and in many localities so fatal, it is but right that every medical practitioner who has had many cases under his notice should at once make known the result of his experience; and on these grounds I now wish to add my mite to the general stock, by giving the mode of treatment that I have had recourse to in at least two-thirds of my cases.

During the last three months I have had about forty cases of diphtheritic or malignant sore throat under my care, and I have especially noticed that one and all of these cases have been in houses situated near a pond or pool, or at the foot of a hill, and frequently where there are many trees about the house; not one having occurred in houses situated on high ground. On inquiring into the history of these cases, I have had but one answer—namely, that the disease commenced by a sore-throat, which the patient thought was only a cold; and consequently when I have seen them they have been in such a high state of inflammation and ulceration, that the patient has told me that he has then applied because he could not take food, either from the pain occasioned by swallowing, or else that it was no use trying, as it only returned by the nose; and very often the voice has been almost inaudible. I have tried many modes of treatment, and so far with very good results; but the one that I have most faith in is one that I would advise those who have not used it at any rate just to give it a trial. On first seeing my patient, I apply the strong solution of chlorinated soda to the fauces, and then follow up my treatment by ordering a sinapism to the throat; a gargle, composed of solution of chlorinated soda, two ounces; tincture of myrrh, two drachms; water, to six ounces: to be used every half hour; and in cases where the children are too young to gargle, I order the throat to be frequently washed with the same mixture by means of a piece of sponge. Internally I give to an adult (of course varying the dose according to the patient's age): chlorate of potash, two drachms; dilute nitric acid, three drachms; solution of cinchoa (Battley's), one drachm; water, to six ounces; the sixth part to be taken every two hours. And in cases where there is much pain in the limbs, I generally add a few minims of tincture of colchicum, which addition has proved decidedly advantageous; the diet to consist of strong beef-tea, port wine, and, in short, all the nourishment the patient can take. I also strongly urge the necessity of free ventilation.

Out of these forty cases I have lost only two, and both were in a moribund state when I first saw them. Although these means are useful in decided cases of malignant sore-throat, they are far too active to be resorted to in simple cases, as they would only tend to aggravate the symptoms. —*Lond. Lancet, Nov.* 1859.

Burbage, September, 1859.

HOSPITAL STATISTICS—*Guy's Hospital,* founded by Thomas Guy, in 1721, for the reception of 400 patients, and recently enlarged through the aid of a large bequest from the late William Hunt, contains at the present time nearly 550 beds : and, with its extensive buildings and airing grounds, occupies an area of about seven acres. The hospital is divided into medical, surgical, clinical, ophthalmic, uterine, and venereal wards, independently of a ward, in a detached building, for lunatic patients, the vacancies in which the governors of the hospital have of late years forborne to fill up. In the year 1857, 44,281 persons were relieved by its means; 5226 as in-patients, 9889 as out-patients, and 25,886 as casualties, besides 1731 women who were attended in their confinements, and 1549 who received advice from the Lying-in Charity. Four hundred patients are now received into the original building of Guy, and one hundred and fifty into the part of the new wing already completed : the latter building, when finished, will admit three hundred persons.—*Lond. Lancet, Nov.* 1859.

NEW ORLEANS

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MIASMATIC HÆMATURIA.

By M. Marsh, M. D., of Port Hudson.

To the Editors of the Medical News and Hospital Gazette:

Gentlemen—I notice in your last number an article under the caption of "Miasmatic Hæmaturia," with the solicitation that those of the profession having a "particle of experience" on the subject should contribute the same to the pages of the *Gazette.* I was not aware that this disease was considered more rare in malarious districts than other forms of nondescript intermittents, appearing under the garb of pneumonia, dysentery, gastritis, and many other forms of disease occurring frequently in malarious localities, with all the pathognomonic symptoms of inflammatory action, but in fact being nothing less than genuine intermittents. The field of my experience in the treatment of disease has extended over the whole area of miasmatic exhalation on this continent, from the mildest form of its influence in Canada, to its pestiferous manifestations in tropical America. Through this whole range of latitude, I have met with not only hæmaturia, but almost every other disease, exclusive of *specific contagion,* as pseudo-intermittents. During the last three years I have met with several cases of intermittent hæmaturia, and have heard neighboring physicans speak of it as quite common. I have always seen it yield at once to the ordinary treatment of intermittents, with acetate of lead, or some other astringent, and scarifying and cups over the lumbar and pubic region in addition. I regard it, as well as miasmatic pneumonia, and flux, a mere intermittent engorgement, and the hæmorrhage as an exudation of blood consequent upon that condition. Arrest the intermittent, and the hæmaturia, pneumonia, flux, or any other disease it may choose as a mask, ceases. I had three cases on a neighboring plantation in August last. All were treated with quinine, counter irritation and astringents, and were immediately suspended. One of the cases relapsed as hæmaturia, in about four weeks, and the other as flux. Both yielded readily to quinine, and the patients have since been engaged in labor in the fields, enjoying the full vigor of robust health.

It is my deliberate opinion, based upon long experience and close observation in the treatment of bilious diseases of periodic fluctuations in miasmatic countries, that these diseases, frequently marked by all the physical signs and characteristic symptoms of inflammation, have given rise to such diversified and contradictory treatment, recommended by authors for their cure. We read from some of our standard books, written by physicians of ability, but whose experience has been limited to a northern latitude, that the lancet, with the whole round of antiphlogistic treatment, is just the thing for dysentery or flux. Another, of no less ability, whose experience has been confined to the tropics, insists vehemently upon quinine being a sovereign specific. According to my experience, both are right in their treatment, as the disease often appears in those localities. If it is a case of true idiopathic colitis, it will yield to the former treatment; if a case of miasmatic or symptomatic colitis, it will submit to the latter; if a complication of both, the skillful combination of remedies will generally subdue the disease.

When I read in the medical journals of the day, of the successful treatment of pneumonia and other inflammatory diseases, by quinine, I feel confident the writers are mistaken in their diagnosis; that they are treating a true and genuine intermittent disguised in all the habiliments of idiopathic inflammation. In the treatment of every form in which disease may present itself in a malarious country like this, the physician should be constantly on the watch, and at all times ready to meet miasmatic complications, in all their protean forms, with the great specific, quinine; and then wrestle with what inflammation or irritation there is left, with their appropriate remedies.

Port Hudson, La., Nov. 12, 1859.

MIASMATIC HÆMATURIA.

By J. C. Cummings, M. D., of Monroe, La.

Dr. Fenner—*Dear Sir:* I noticed in the November number of the *Hospital Gazette*, an allusion to a disease that has made its appearance here in the last few years, namely, miasmatic hæmaturia. I doubt whether that is the best name for the disease, because most cases have occurred on the oldest plantations in this parish. True, the cases were on the river or bayous, but they were on plantations that have been cleared from twenty to sixty years. If miasma is caused by decaying vegetable and animal matter, and this disease is caused by miasmatic poison, why was it not a common disease of the country, when it was first being settled? It is a disease entirely unknown here until within the last three or four years. Last year there were a few deaths in Morehouse parish, from this disease, and it was called yellow fever.

Imagine a patient having black vomit, or rather hæmorrhage, two hours after the chill in yellow fever, and you will have a correct idea of the malignancy, if not the pathology, of this disease. The first case that I saw, was C. T., a large planter on the Ouachita river, about twenty-five miles below Monroe. The plantation formerly belonged to Dr. Ballard, and has been cleared fifteen years. I left Col. T. in the city last March, looking, I thought, as well as usual. I think he returned home about the 16th of March. On Friday, the 18th, he had a chill, followed by fever, but not more than an ordinary attack; and Saturday, he and Dr. S. rode over their plantation. Sunday, Col. T. had another chill, and in an hour or two commenced having copious discharges from his bladder, of a dark claret color. I went to see him on Monday, and at four o'clock, P. M., found him exceedingly prostrated; pulse frequent and weak; skin of a deep saffron color; rather a clammy sweat; and stertorous breathing. He was easily aroused out of his semicomatose state, and took freely whatever was given him. From Sunday evening, until four o'clock Monday, he had some ten or twelve discharges from his bladder. As each evacuation weakened him very much, and not knowing where the blood came from—for I considered the case hæmorrhagic—I advised Dr. Richardson to inject the bladder with a solution of nitrate of silver, if the discharges continued an hour or two longer. In the meanwhile, we put him on large doses of turpentine to check the hæmorrhage, and chlorate of potassa to eliminate the poison from the blood, if possible. Col. T. had taken quinine and calomel, and one small dose of morphine.

I went back to see him on Tuesday. He had two or three more evacuations from the bladder, and then Dr. Richardson gave the injection of nitrate of silver, which checked the discharges for twenty-four hours, until, just before he died, he passed urine a little darker than that of health.

I have seen, in all, five cases this summer. The next case was a large mulatto man, on Col. Rust's plantation, sixteen miles below Monroe, on the Ouachita river. I saw this case on July 12th, and again on the 14th. He had been sick three or four days, when I first saw him. He was very weak; conjunctiva and skin a deep yellow. He was having dark colored discharges from his bladder every three or four hours; had passed blood by the bowels; and was vomiting dark bluish green "stuff" freely.

Since Col. T.'s death, Dr. Richardson told me that a German physician in Columbia had treated a case with tannin alone. Had given the tannin internally and by baths, and that the patient recovered. Also that he (Dr. R.) had treated a case on his own plantation (a negro boy ten or twelve years old) with acetate of lead, and cold water treatment, and that this case also recovered.

With the light of these two cases before us, Dr. Cheatham and I put case number two on alternate doses of tannin and acetate of lead, and gave tannin in large doses by enema. I was sent for again on the 14th. Found the patient seemingly better. The hæmorrhages had ceased, his bowels were checked, and urine almost natural in color. But his extremeties had become cold about twelve o'clock, and when I saw him, seven or eight, P. M., he had a little fever. We put him on large doses of quinine both by the mouth and by enema; and, notwithstanding, he got cold again next day, and died in a collapsed state. What was peculiar about this case, was the vomit. It looked something like a mixture of the solution of indigo and sulphate of iron.

July 16th, I went to Morehouse parish to see another case. This patient lived about twenty-five miles hence, on the edge of Prairie Jefferson. He was taken with a chill, followed by dark colored urine. This commenced turning yellow after the first discharge of urine, and the yellow tinge grows deeper and deeper till it becomes saffron color. We put Mr. L. on tannin freely, by the mouth and by enema, and also calomel freely. In twenty-four hours his urine became almost normal in appearance, but he had this peculiar vomit that I spoke of, only it was not so bluish as case number two; but I will enclose Dr. Myers' letter, giving particulars of this case.

The next case, number four, was in consultation with Dr. Calderwood, July 30th. He was a young man; lived about three miles below Monroe, on the river. He died on the third or fourth day, and his urine before death became comparatively normal, but he had the vomit like cases number two and three. Another fatal case occurred in Monroe about two weeks since. He had the vomit, also, but not to the same extent as the other cases. This commenced as an intermittent, and the dark colored urine was only discharged during the paroxysm.

Now, all of these cases, except number two, were persons who had previously been in bad health, having chills now and then, and who might thus be said to be reduced to the hæmorrhagic diathesis. Dr. Harrison, of Prairie Jefferson, a well read and high toned physician, thinks this disease is caused by quinine; but if so, why has it not become a common disease in the south long ago? I have examined the urine under the microscope, and find large deposits of crystals, mostly, I think, muriate of ammonia. Have not been able to make an autopsy of any case, but think that the kidneys must be greatly diseased, as tube casts are abundant in the urine, when examined under the microscope.

I sent you some urine in July, with the request to get Professors Riddell and Crawcour to examine it. Then I did not know that you had gone to Europe, and thinking that you had never received my hasty letter or the urine, I now write you more at length, and will send, through the kindness of Mr. Evans, another specimen of the urine of case No. 4. I ought to have mentioned that Dr. Calderwood treated a case a few miles from town, which came on in an intermittent type. The dark colored urine was only discharged during the chill and fever, and when those would pass off the urine would become clear again. Opium was given between the paroxysms, and the patient recovered. This case was deeply jaundiced and greatly prostrated. The most fatal cases are those commencing with a severe chill, followed by very little fever, with no intermission of the discharge of the dark colored urine. The skin becoming more and more tinged with a dark jaundiced color. The patients complaining of no pain, unless of an uneasiness about the neck of the bladder: the cases resembling precisely the second stage of yellow fever. The first cases known in this section occurred three years ago, on the head waters of the Bayou Bartholomew, and one case on the Ouachita, about twelve miles below Monroe, which case proved fatal on the third or fourth day. I am told that nearly all the cases on Bayou Bartholomew were fatal, and considered at the time to be yellow fever. There were more cases this year in Morehouse and Ouachita parishes than ever known before. As to the cause being miasmatic, it is true that there is a great deal of land being cleared up, but what I wish to say, is, if the disease proceeds from miasmatic poison, it ought to be a disease common to the whole State. So far, no treatment has proved successful, the recoveries being about in the same ratio as that from genuine black vomit.

Monroe, La., Nov. 12, 1859.

CLINICAL LECTURES OF PROF. NELATON.

From notes taken by MARCO A. ROJAS, M. D., New Orleans.

Spontaneous termination of hernia. Three fatty tumors of the abdomen. How they are originated. Retro-uterine hematocele. Symptoms of this disease. The blood these tumors contain comes from the ovary. Place where the effusion takes place. External appearance of the patients. M. Tardieu's observation. Treatment of these tumors. The warm baths are noxious. Circumstances which could prevent the cure. Connection between copulation and retro-uterine bloody tumor. Nelaton's observation. What the tumor really was.

Dec. 21, 1857.—*Spontaneous Cure of Herniæ.*—A man of middle age came to the wards to be cured of a disease of the urinay organs, of which we will speak hereafter. He presented on the abdomen three small tumors, two of them near to the umbilicus, and the other on the crural arcade. These three tumors were subcutaneous, superficially movable, and deeply fixed. They were irreducible; that is to say, it was impossible to make them go into the abdominal cavity. "These tumors," said Mr. Nelaton, "are fatty, and are originated by herniæ which have been reduced in infancy. My experience shows, that when by a cause, whatever it may be, the viscera do not go into the hernial sac, it folds upon itself, beginning then, at the external side of the sac, to take on a deposit of fat, which fat invades it gently, little by little, until it reduces the canal to a small peduncle, the sac being ultimately obstructed.

"In the present instance, that phenomenon has taken place three times, and was caused by umbilical and crural herniæ. It is only a spontaneous mode of cure for herniæ." These tumors being secondary to the disease which obliged the patient to come to the hospital, Mr. Nelaton did not say anything about the treatment.

March 6, 1857.—*Retro-Uterine Hematocele.*—A female of middle age, with all the appearance of good health and strength, came to the hospital for a disease of the uterus. She enjoyed the best health until two months ago, when she observed that her menses did not last as many days as usual. It is eight days since she was suddenly seized with pains in the abdomen, so severe as to prevent her attending to her business, although she tried to do it. These pains have increased so much that she is forced to come to the hospital. She is aware that she has an abdominal tumor; but an abdominal tumor of eight' days standing cannot be more than a phlegmon or an hematic tumor. Mr. Nelaton examined the patient, and found that there was retroversion of the uterus. Instead of being round, the os is flattened, being placed behind the symphisis pubis, and behind it Mr. Nelaton found a tumor in the shape of the figure (

This tumor is consistent, and has not the hardness either of a fibrous tumor or of a cancer. It has rather the consistency of a tumor composed of coagula of blood, and is inclined towards the left side. It was very easy to move the uterus with the finger.

In the present instance, there is neither a peri-uterine phlegmon, nor an effusion in the pelvic cavity. These diseases have another beginning, and run a slower course. The sudden oommencement of the pains and their intensity pointed out that it was a retro-uterine hematic tumor. Mr. Nelaton has seen cases of this kind in which the patients had to endure the most intense pangs, shrieking, and asking for a knife to open their abdomen. "When you meet such dreadful pains," said Mr. Nelaton, "you can justly presume that, in all probability, you have to do with an hematic retro-uterine tumor.

"From what place comes the blood these tumors contain? This effusion takes place into the cavity of the peritoneum, and not in the subjacent cellular tissue, as some have fancied. The post-mortem examinations of such tumors, made by Dubois, Denonvilliers, and myself, show that there is communication between the bloody effusion and the ovary. Thus, in all probability, it is from the ovary that comes the blood; it is enough to have on it a little excoriation to give rise to an effusion into the cavity of the peritoneum and at the posterior part of the uterus. On the other hand, if you examine the external appearance of these patients, you will see that it is like that of those who have lost a great deal of blood. M. Tardieu has found that after a little laceration of the ovary has taken place, followed by an effusion into the peritoneum, death, in many cases, has been caused in less than fifteen hours.

"What ought we to do to cure this patient? Nothing; absolutely nothing. It is now twenty-four or thirty-six hours since she is in the wards, and already her pains have lessened with rest alone. The fear which females have of inflammation in these cases, and in some diseases of the bladder, makes them submit themselves to a *regime* of warm baths, which is very noxious. But we ought not to think that these baths have the same effect in all the diseases of the urinary organs.

"This patient will be cured without doing anything, and it is only with the pnrpose of satisfying her fancy that I have prescribed and employed a pomatum, inert, of course.

However, this cure will not take place if at the next menstrual period supervenes a new laceration of the ovary.

"Another thing might happen, viz: a bloody coagulum remaining on the peritoneum may give rise to inflammation and false membranes. Considering the favorable condition of the patient, however, it will probably not happen in the present instance.

"It would be very interesting—on account of the fact acknowledged at the present day by the profession, viz: that these tumors are but the result of a disease of the ovary—to ascertain if fecundation has any part in its production. I shall not be astonished if it may prove to be so."

With great delicacy, he inquired of the patient if the first pains came after coition. She acknowledged that she felt the first strong pains after a prolonged act of copulation. "This is an observation that I have made several times," said Mr. Nelaton.

March 18th.—The sufferings the patient had to endure during the past few days forced Mr. Nelaton, two days ago, to resort to a puncture of the tumor, which resulted in the discharge of a large quantity of pus. It was not, indeed, what Mr. Nelaton expected, for he believed he had to do with a bloody tumor. To-day the patient has improved much; but the wound having cicatrized, it was necessary to open it again, in order to prevent a new accumulation of pus. "This case proves," said Mr. Nelaton, "that it is not possible yet to make an accurate diagnosis between a retro-uterine bloody tumor and a purulent one."

This patient remained for three weeks more in the wards, and left quite recovered.

LONDON CORRESPONDENCE.

My Dear Doctor—By this time I may fancy that you are engaged in home pursuits, home enjoyments, if not home rest: the scenes of the past few months occasionally starting into shape and form before the imagination, and, like a dissolving view, soon fading from the sight, to give place to other not less pleasing associations. Such is life; and happy he who, floating in the breeze, is able to extract some of the sweets, some of the substantial goods that pervade the moral atmosphere.

You will not regret, perhaps, to have exchanged princely palaces, gorgeous mansions, magnificent cathedrals, and works of ancient and modern art of the highest perfection, for the so-called Republican simplicity of New America, however difficult it may be for you at this early period fully to comprehend, that in your daily vocation, you have no mountains to climb, no beautiful lakes to look upon, no steps to take—as we in continental tours have verified—that quickly carry one from "the sublime to the ridiculous."

Having yourself seen all that you desired medically in the quarter to which I have just alluded, I may best direct my thoughts to events that have very lately and are now transpiring in London.

As some sage pronounced the world in its dotage many hundreds of years ago, I may be pardoned if I leave it where the *sage* left it, and touch only upon the moderns, which will, perhaps, be most to the purpose.

About the time that you were indulging in some of those qualms peculiar to the commencement of a sea voyage, hundreds of old and young men were hastening to the lecture-room of one or other of the various colleges and schools of medicine in London, to listen to an introductory lecture.

The only relation that I shall trace between a sea voyager and a young student, being, that both may be drawing upon the future for brighter prospects.

The time for the delivery of many of the lectures being the same, and the distance from one hospital to another very considerable, prevents one from being present on many of these occasions. King's College and St. Mary's, were the two selected. From the published abstracts of the whole of the lectures, we find the same leading facts and principles, clothed with singular diversity of ideas and language. Amongst them, Mr. Mitchell Henry's, of the Middlesex Hospital, was noted for its excellence.

This month also inaugurates the medical societies of London, which, without an exception, are numerously attended, and conducted with much spirit. Being now a member of three of these societies--the Obstetrical, the Pathological, and the Harveian—I may occasionally meet with something to transcribe of their proceedings during the season, as well as of others which I have an opportunity of visiting.

At the second meeting of the Medical Society of London (and this is the oldest society in London), an animated discussion took place upon Dr. Thudicum's paper on "the pathology and treatment of gall stones," which, in his (Dr. Thudicum's) opinion, mainly arose from the decomposition of the solvent of cholesterine in the gall-bladder. Numerous cases were brought forward to sustain this view, and to show at the same time, that with appropriate treatment, as opium, to relieve the urgency of the symptoms, and the strict observation of dietetic and hygienic rules on the part of the patient, a good old age might be obtained. Here, as also at the Pathological Society, a large number of morbid specimens were exhibited.

The most novel feature in the paper to which I have just referred—and which did not meet with much favor by the members present—was the suggestion, that the extraction of the gall-stones, through an oponing made in the abdomen, so that the gall-bladder might be washed out and emptied of its contents, would be attended with little danger, as the fistulous opening would in a short time heal.

As something collateral to medical affairs, I may allude to the third annual meeting of the "National Association for the Promotion of Social Science," which commenced at Bradford on the 11th of this month. As in the term social science may be embraced a vast deal that relates to the well-being of society, it may be readily imagined that the proceedings at this national meeting were discursive in their range. Men from various parts of England interchanged opinions in written and oral form, upon existing institutions, introducing other institutions, which, in all probability, had no prior existence.

But of this it may be said, *multa petentibus desunt multa*, and yet these things are not without their use; for in the subjects of general health, sanitary progress, the condition of sewers, the atmosphere, density of population, reformatory schools, etc ,—all classes and all people must take a lively interest. Upon the proper understanding of some of these subjects, and their application, legitimately depend, in a great measure, the art and the science of the prolongation of human life.

1 will here make a few extracts from the paper upon the public health. After bringing forward some statistics, Mr. Cooper, the writer of the paper, says:

"But the light we now possess is sufficient to prove the startling fact, that in England alone a hecatomb of victims, at least one hundred thousand of our people, are being annually sacrificed to ignorance or disregard to the laws of health; and that, in addition to these hundred thousand deaths, far more than a million of persons are suffering from serious illness from the same cause. * * * But statistical records tell us, not only of the fearful penalty we are paying in the lives and comfort of our people, by the breach of sanitary laws, but also of the lives that have been saved, and the strength that has been preserved, by the practical application of sanitary science. Returns from nineteen towns, in which drainage works have been executed under the *Public Health Act*, show that the mortality, which previous to those sanitary measures averaged twenty-eight in one thousand, fell after them to twenty-one in a thousand. * * * Croydon (a town ten miles from London) is one of the most instructive cases. Tubular drainage was adopted there at a moment when the controversy respecting that system was raging, and grave mistakes having been made in the application of the plan, Croydon became a battle-field for the contending parties. Commissioners inquired, and all the circumstances of the place have been minutely investigated and recorded. Croydon is now one of the healthiest towns in the kingdom. Comparing the mean of five years before the works came into complete action, and that of the five years after, the death-rate is found to have fallen from 28 to 22.9."

These and many other similar statements are significant; and if significant in populous towns and districts in England, might not some of the active and sterling men in your commercial city, stimulated by the cause of humanity, and impelled onward by motives of interest, commence in good earnest to drain, to wash, and to cleanse? Truly, it would be expensive; but if we are taught anything by observation, it would be no mere experiment, doubtful in its result, but a fact estimated in figures—figures showing a decline in the death rate—an increase in the population—the best refutation to the repeated assertions of some few men, which would be pernicious were they not utterly puerile—that at least one of the greatest scourges with which it is visited (the yellow fever) is not influenced by the filth which offends more than one of the senses, and renders impure an already oppressive atmosphere of 90°.

Next year is to be published the results of quarantine in different countries, as obtained from inquiries instituted more than a year ago, and which inquiries are still going on. Should New Orleans be interrogated, could she speak as clearly of the good, as she may speak forcibly of the expense, which has resulted from the system of quarantine? If asked, have you any report to give?

I have to thank your associates for the October number of the *Hospital Gazette.*—I remain, my dear doctor,

Yours very truly, B.

London, Oct. 28, 1859.

SPECIAL SELECTIONS.

ON THE MODE OF EMPLOYING THE HYPODERMIC TREATMENT.

By CHARLES HUNTER, late House-Surgeon to St. George's Hospital.

THE SYRINGE—ITS EMPLOYMENT; THE TISSUE, AND THE PART OF THE BODY TO INJECT.—THE QUANTITY OF FLUID; DOSE; CAUTIONS.—GREATER EFFECT ON WOMEN THAN MEN.—MEDICINAL ADMINISTRATION BY THE TONGUE AND RECTUM.—In consequence of the polite letter from "Medicus," in this journal, and numerous others which I have received relative to the employment of the hypodermic treatment, I feel called upon to make the following observations; and firstly, with regard to

The Syringe for Injection.—The little instrument I use is made by Messrs. Whicker and Blaise; it is of the same make (but a little larger as regards the barrel) as their original *caustic syringe.* The barrel is of glass, with silver fittings, and contains a piston which works by a screw-rod, each half-turn of which expels half-a-minim, as a fine drop from the end of the pipe.

Two pipes belong to each syringe, the one larger and stronger than the other; the smaller pipe will be found the best for general use; it screws on and off the barrel at pleasure, and is made of silver, with a hardened gold point. This point is sharp like a needle, and perforated on one side by an oblique opening, through which the drops of the narcotic otic or other solution are expelled.

No incision is required with lancet, or other instrument, when this syringe is used, for the point of the pipe being very sharp and fine, is readily passed, with proper precaution, beneath the skin; no blood is shed, and the operation is no more than the prick of a needle.

The Employment of the Syringe.—Having charged the syringe with the narcotic fluid, hold it in the right hand at the junction of the barrel with the pipe, and with the left hand take up, between the finger and thumb, a fold of the skin of the patient, so as to make tense the part beyond your thumb, then the right hand being gently steadied, but not heavily pressed on the patient, let the point of the syringe, which is held at a right angle to the skin, touch the part which is tense, and with a *quick but steady movement,* be passed through it; the point being well *through the* *skin*, the direction of the pipe may be altered so that it may run along in the loose cellular tissue beneath; * all this is the work of a moment; the pre-arranged number of drops are then introduced by so many turns of the piston, the pipe is then withdrawn, a finger making slight pressure as near as possible on the punctured spot, the object being both to steady the skin, and prevent any drop of liquid escaping; and lastly, a narrow strip of plaster, cut beforehand and warmed, is placed on the spot.

The strip of plaster is generally a precautionary measure, but it becomes a necessity when the quantity injected is large, say twenty minims; but it is always useful to prevent the spot from being chafed. A broad piece of plaster is worse than none at all; it presses on the "little lump" which is caused for a few minutes by the presence of the injected fluid beneath the skin, and not at all, perhaps, on the punctured spot, and so it does more to press the fluid out than to keep it in (I have seen a first injection in a case of delirium tremens fail for this very reason); *but a narrow strip just covers the punctured spot.*

These directions may appear unnecessary, but the operation may fail, as just shown, for want of attention to these little points. If the introduction of the syringe be attempted, the skin of the patient being loose, or the syringe held at the further end, and consequently unsteadily, the patient may by these means be put to a great deal of pain, and the pipe of the syringe may be bent or broken from the socket; but when it is introduced with a quick, steady movement, the skin being tense, the patient does frequently not even know when the point is introduced.

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* In the majority of cases, the plan above described is best, especially with thin people; if, however, the patient is very fat, it is better to perforate vertically a portion of skin and subjacent fat, pinched up, and so made tense between the finger and thumb.

The Tissue to Inject.—The tissue injected is the cellular or areolar tissue of the body; it may not matter *much* whether the cellulo-adipose tissue, the panniculus adiposus, or the reticular tissue beneath it (not containing fat) be injected, but the latter is to be preferred; it is the looser of the two, fluid injected into it meets with no obstruction, and cannot easily escape from it, but if injected into the skin itself, as some think it is, or the conjoined cellulo-adipose tissue, it is apt to cause pain, it enters less readily, and is more apt to escape; nor does it seem to act quite so rapidly as when injected into the loose cellular tissue from which most probably absorption is the more rapid.

The Part of the Body to Inject.—When the object is to quiet the brain, or to produce a general effect, is it material whether the fluid be injected into the cellular tissue of the body or of an extremity? *No;* the non-necessity of localisation is the basis of this plan of treatment, and is the reason of its applicability in cerebro-spinal affections and general diseases. I need only refer to the various cases detailed in corroboration of this. The site which I, however, most commonly inject, is *the inner part of the arm.* The skin is here thin, easily made tense, and easily perforated; the cellular tissue beneath is loose, and readily receives the fluid; there are perhaps more veins here than in some other parts, but they are easily avoided.

The Quantity of Fluid to Inject.—It is well to have the fluid of that strength that three or four turns of the piston shall be an ordinary injecting dose. Two or three turns can be made in a moment of time, and it is no small relief or surprise to the patient, who has been expecting, perhaps dreading, an operation, to find all over in *less than half a minute.*

The Dose.—Too much caution cannot be employed with regard to the *amount of the narcotic* injected. Two half turns, if your solution is strong, may double the dose, and the life of the patient, for want of due care, be placed in jeopardy; I would, therefore, urge attention to these points:

1. Be certain of the exact strength of the fluid employed, and the exact value of each turn of the piston.

2. Concerning first injections, never use more than half the ordinary stomachic dose for males, nor more than a third for females.

3. Should a second injection be necessary, let it not be used too soon; nor in a full dose when the patient is partially under the influence of the narcotic.

These points are of practical importance; a *certain degree* of narcotism has to be reached for benefit to accrue, and by the injection it can be reached in many cases by a very small quantity of the narcotic, because of the rapidity with which the effect is produced, what we have to avoid is *too great* an effect; what we try to produce is a *certain effect* with *as small a quantity* as possible. This leads me to remark that men *bear narcotics much better than women.*

I was not aware to what extent this was the case until I had employed this treatment some little while; but I now think it may be looked on as a rule that men in general will bear with no ill effects, but be benefitted by, injected doses of narcotics, which doses would very strongly, if not seriously, affect women; in fact, *this treatment is a test of the exact amount* of a narcotic necessary to produce a desired effect, when taken by direct means into the general circulation. For instance, you introduce beneath the skin the one-eighth of a grain of morphia, the effect which follows is the whole effect of the whole one-eighth; but you cannot be certain that the effect which follows the administration of one-eighth of a grain, firstly, by the skin; secondly, by the stomach; or, thirdly, by the rectum, is the effect of the whole one-eighth; but it is the whole effect of the quantity absorbed.

As by this method we get the *whole effect of the known quantity introduced,* which we are not sure of getting by the other modes, we have now a method as accurate as that of venous injection (without its dangers) for testing the precise effect of little-known medicines on animals, and the exact doses and effects of well-known medicines on man, of seeing the difference which the sex requires in the dose, and of ascertaining the minimum amount required to produce a desired effect.

It is impossible to say "what amount is to be injected," without knowing the particulars of the case, as well as the sex and age; but taking the acetate of morphia for an example, I think that first injections for adult females, should vary from the one-eighth to a quarter or one-third of a grain; for adult males, from the one-sixth to half or three-quarters of a grain.

First injections should be small rather than large, and are good indicators of the amount necessary, should repetition be required. It is true that I have seen used and employed myself, much larger quantities than those I have mentioned, for first injections; but the cases have been exceptional, and under close observation.

In the preceding papers on this subject, I have shown the advantages of this mode of treatment over the endermic, enepidermic, and stomachic methods, which, requiring longer to act, are less certain, and apt to fail completely. Before, however, bringing this paper to a close, I would allude to two other modes of medicinal administration, viz., by the tongue and by the rectum.

1. *Medicines administered by the Tongue.*—Dr. Wardrop has shown* that there is a remarkable difference in point of time when medicines are absorbed from the stomach or from the mouth, absorption being most rapid from the latter, and the effect is more regular and more equable. Nor is it difficult to see why—the medicine absorbed from the mouth is taken directly into the general circulation, but when absorbed from the stomach, it has *en route* to pass through the portal system; absorbed from the tongue, the effect is more regular, because the medicine is more certainly absorbed *en masse.*

There is, then, much similarity between the hypodermic and the lingual modes. Rapidity of absorption is the great point in the *modus operandi* of each; and with regard to the effect, they both have the advantages of rapidity, greater efficacy, regularity, and equability. Can the one method, then, replace the other? Are they applicable for the same cases and medicines? No; they both have their advantages. Dr. Wardrop's plan is best for the administration of *tasteless* medicines, for calomel, *et hoc genus omne*, but it cannot be used for those medicines which are nauseating and bitter—not, in fact, for narcotics generally, not for cases of delirium, patients refusing medicine, etc., which are the cases where the other plan is most desirable.

2. *Medicines administered by the Rectum.*—This mode of medicinal administration is of great value, and useful as a means both for local and general treatment; there can be no doubt that this method has advantages which the stomachic has not, viz., of greater rapidity of action and greater

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* Ranking's Half-yearly Abstract, Vol. xxii, p. 302.

effect, but the effect is *uncertain;* this uncertainty of action is *not* dependent on the mode of introduction, especially if the medicine be used in the liquid form, and employment be made of the graduated syringe, invented by Mr. Spencer Wells, to regulate the exact amount introduced; but is due to the want of *regularity of complete absorption,* which cannot be done away with. The rectal method is the more advantageous where the object is to administer the smaller doses of narcotics for affections of the intestinal canal, the rectum, and the parts adjacent supplied by the great sympathetic, but *most especially* for the speedy introduction of stimuli, and of nutriment in urgent cases; for liquids introduced by this plan have the advantage of being conveyed *simultaneously into both* the portal and systemic circulation; the hypodermic, on the other hand, is the more applicable for those cases where the part, requiring the narcotic, is supplied by the systemic circulation, and is under the influence of the cerebro-spinal nervous system.

Wilton Place, Belgrave square.

SOME REMARKS ON CARDIAC HYPERTROPHY.

By Austin Flint, M. D., Professor of Clin. Med., etc., in the N. O. School of Medicine.

Correct views respecting the two forms of enlargement of the heart—hypertrophy and dilatation—especially as regards the abnormal circumstances under which they are produced, their relations to each other, and the effects of each, are important on account of their direct practical bearings. The clinical study of cardiac diseases has lately led to a complete reversal of certain ideas connected with hypertrophy; and the consequence is, a reversal of the practice which, until quite recently, the existence of this form of enlargement was supposed to require. But there is reason to believe that this change is not so generally known or so fully appreciated by practitioners of medicine as, in view of its importance, is to be desired. This consideration mainly has determined the selection of the subject of this article. I shall endeavor in a few remarks to embody a concise expression of practical views which it is believed are in accordance with sound pathology, as well as with the conclusions drawn from clinical experience, and which, if not in some respects original, have not, as it seems to me, been fully presented, and their application to practice sufficiently considered.

Hypertrophy and dilatation are effects of an obvious mechanical obstruction to the circulation, in the great majority of cases. It is probable that in the comparatively few instances in which an obstacle is not apparent, it nevertheless exists. This remark is, however, more applicable to hypertrophy than to dilatation. Practically, it may be assumed that if the heart be hypertrophied, there either is, or has been, over-accumulation within the cavities of the heart from some impediment to the free passage of the blood either through the cardiac orifices or the vessels. In by far the greater proportion of cases, the obstacle arises from valvular lesions, which occasion either obstruction or regurgitation, or both; and it will suffice for the present purpose to limit the attention to hypertrophy and dilatation occurring as consequences of those lesions.

Valvular lesions give rise to hypertrophy and dilatation, which, when death results from disease of the heart, are usually found to be combined in variable proportions. It is rare to find hypertrophy without dilatation, or dilatation without hypertrophy. Both forms of enlargement are alike consequences as valvular lesions, but the latter do not give rise indifferently to the one or the other form. What are the laws which govern their mutual relations? In answe to this question, the following may be stated, as deductions from clinical facts: Hypertrophy is uniformly the first form of enlargement produced as a consequence of an obstacle to the circulation, provided the muscular structure of the heart be unaltered and its vigor unimpaired. Hypertrophy, under these circumstances, precedes dilatation. The two forms of enlargement do not, as stated by some writers, go on together from the commencement, but dilatation begins after hypertrophy has been going on for an indefinite period. In the course of time, dilatation is as inevitable as the precedence of hypertrophy is invariable. These laws hold good except in the cases in which the walls of the heart are the seat of fatty degeneration, or other changes, or the muscular power of the organ from any cause has been permanently impaired. The following are clinical facts leading to the foregoing deductions: In persons affected with valvular lesions, together with more or less cardiac enlargement, who are cut off by some intercurrent or incidental affection before suffering from any marked symptoms referable directly to the heart, examination after death shows hypertrophy either existing without dilatation, or greatly predominating over the latter. *Per contra,* in persons who die after a protracted duration of disease of the heart, having presented before death characteristic symptoms, such as dyspnœa, lividity, and general dropsy, dilatation is found to predominate over hypertrophy.

The production of hypertrophy, in view of the obstacle which occasions it, is compensatory. In health, the vigorous contractions of the ventricles are complete; that is, the blood is entirely expelled, leaving the ventricular cavities void at the close of the systole. It is not easy to demonstrate this, but proof was afforded in a case falling under my observation of mitral lesions, in which a small mass of calcareous deposit projected from the ventricular aspect of the anterior curtain of the valve. Directly opposite to this mass, the endocardial membrane, over a space corresponding in size, was opaque and thickened—in fact, calloused—the membrane surrounding this spot being perfectly normal. The callosity was obviously due to long-continued repetitions of forcible contact with the calcarious mass, thus showing that the endocardial surfaces are brought into apposition by the systolic contractions. For this completeness of the ventricular contractions to continue when an abnormal obstacle to the circulation exists—for example, let it be supposed that the aörtic orifice is contracted—the power of the contractions must be increased proportionally to the impediment caused by the contraction of the orifice. This increased power is a result of the obstacle to the egress of blood through the aörta, and the consequence is, increased muscular growth, or hypertrophy of the left ventricle. This increased growth imparts to the ventricle a greater amount of power, so that its capability to compensate for an increasing difficulty, is extended in proportion to the progress of the hypertrophy, the latter, conversely, keeping pace with the increase of the obstacle due to the progressive obstruction at the orifice of the aörta. The same results follow when lesions, either obstructive or regurgitant, are situated at the mitral, tricuspid, or pulmonic orifices, the difference being chiefly as regards the ventricle first affected. The laws are, *first*, augmentation of muscular power compensating for the obstacle, or proportionate to the undue accumulation of blood in one or both of the ventricular cavities; *second*, increased muscular growth or hypertrophy; *third*, greater capability of exerting muscular power, proportionate to the amount of hypertrophic enlargement.

It is evident from this view of the immediate pathological consequences of valvular lesions, that hypertrophy is a conservative provision designed to obviate ulterior morbid effects. This idea, however, has but recently been appreciated, or, at all events, it is only of late that it has began to exert its legitimate influence on practice. Practitioners have aimed to diminish the hypertrophy, or prevent its further progress; and for this end potent measures have been resorted to, viz: copious blood-lettings and other methods of depletion, low diet, and as much quietude as possible. So far from these objects of treatment being desirable, they conflict directly with conditions on which the comfort and safety of the patient depend. The practitioner should strive rather to maintain the hypertrophy, and to govern its increase in proportion to the increasing impediment to the circulation due to progressive valvular lesions. The existence of hypertrophy does not call for measures to lower the powers of the system and weaken the heart, but on the contrary, the body should be well nourished, and the vigorous action of the ventricles promoted. Not only are depletory and debilitating measures uncalled for by the hypertrophy, but an opposite plan of treatment is indicated, viz: a good diet, tonic remedies, and exercise, so far as it can be taken without a sense of discomfort. It is somewhat difficult at once to receive practical views diametrically at variance with those which have hitherto guided medical practice, under the sanction of high authority; but clinical observation, as well as sound pathology, shows the importance of hypertrophy as a conservative provision against the secondary and remote evils arising from valvular lesions. As a rule, these lesions, so far as symptoms are concerned, are latent while the impediment to the circulation which they occasion is compensated for by the muscular growth of the heart. This period of latency often lasts for many years. Persons experience no inconvenience from symptoms referable to the heart, leading them to be apprehensive of cardiac disease. They do not go to the physician with ailments dependent on the condition of the heart for a long time after the lesions of the valves have induced hypertrophy. The existence of cardiac disease at this stage is often ascertained incidentally, patients coming under observation with various affections which have no direct connection with the heart. Moreover, of persons affected with valvular lesions and hypertrophy, they have remained for the longest period exempt from distressing symptoms referable to the cardiac disease, who have continued to live well and take abundant exercise, not being fully aware of their condition, and not subjected to debilitating medication. My own observations furnish a number of instances strikingly illustrative of this remark. Numerous cases have been reported by Dr. Stokes and others. In fine, the alternative being between hypertrophy and dilatation, in cases of valvular lesions which by obstruction or regurgitation occasion an impediment to the circulation through the heart, the former is not merely to be preferred as a choice of evils, but it is highly important as a protection against the latter.

Hypertrophous enlargement of muscular organs has its bounds. Having attained to a certain size, their further increase is impossible. The heart, like the voluntary muscles, in addition to its normal extent of development, has a capacity for only a definite amount of abnormal growth. The restriction to hypertrophy is inherent in the muscular tissue. Extrinsic circumstances cannot carry the growth beyond a fixed point. On what does this intrinsic limitation depend? This inquiry cannot be answered without more knowledge of the mechanism of muscular growth than has yet been acquired. It appears not to be settled demonstratively whether the muscles increase in size by the formation of new febrils or by the enlargement of those already formed. In the one case, hypertrophy involves a hypergenesis of the structural elements; in the other case, the process is simply exaggerated nutrition. The former is to be inferred from the extent of the capacity of the muscles for hypertrophous enlargement. This intrinsic capacity, as regards the heart, probably varies in different persons. The limits of hypertrophy having been reached, and the impediment to the circulation persisting, dilatation necessarily follows. So soon as the musculsr power of the ventricles is inadequate to completeness of contraction, and the walls of the heart meet with a resistance from the blood accumulated within the cavities, which they cannot overcome, dilatation becomes a necessity. From this epoch dilatation goes on with a rapidity, other things being equal, proportionate to the distention of the ventricles from over-accumulation. In this way dilatation becomes combined with hypertrophy, and the dilatation is more or less predominent, according to the degree of impediment to the circulation, and the duration of life after the hypertrophous growth has ceased. When the latter has reached its utmost bounds, and existence has been prolonged, so that the dilatation is extreme, the heart attains to an enormous size, constituting the *cor bovinum* of the older writers. The pathological processes involved in the production of hypertrophy on the one hand, and on the other hand of dilatation, it will be observed, are quite different. In hypergenesis and hypernutrition the processes are vital, but distention and dilatation are processes purely mechanical. The former results from the exaggerated power of a vital function, viz: muscular contraction; the latter proceed from passive yielding of the tissues.

In this sketch of the production, successively, of hypertrophy and dilatation, it is assumed that the muscular structure of the heart is unchanged, and that morbid weakness of the organ does not exist. If the walls of the ventricles have undergone extensive fatty degeneration, for example, the rule of the succession of hypertrophy and dilatation may not hold good. A vital reäction sufficient to overcome the increased resistance is not called forth under the circumstances. The hypertrophous growth is slight or wanting. Yielding of the ventricular walls takes place speedily or at once, and dilatation thus occurs, with little or no hypertrophy. Weakness of the heart, induced from any cause, for example, injudicious treatment by blood-letting and other debilitating measures, may cause an arrest of the hypertrophous growth before it has reached its intrinsic bounds, and in this way is hastened the epoch when the enlargement by dilatation commences. If the heart be greatly weakened by organic change (fatty degeneration), the ventricles may yield to the distention occasioned by the accumulation of the blood in the cavities, without any impediment to the circulation from valvular lesions or other obstacles, except the diminished muscular power of the organ. Clinical experience furnishes examples of dilatation resulting exclusively from the latter cause. And according to the foregoing statements, if, in connection with valvular lesions, dilatation be found after death to exist either without or with only a slight degree of hypertrophy, we should expect to find the muscular structure altered. In other words, in cases of enlargement of the heart proceeding from valvular lesions, if hypertrophy exist alone, or in a marked degree in connection with dilatation, we should expect to find the muscular structure normal, save as regards the morbid growth. Clinical experience verifies the correctness of these conclusions.

Of the two forms of enlargement of the heart, dilatation is the form to be dreaded. The production of hypertrophy, as has been seen, for a certain period compensates for an existing impediment to the circulation, and is a conservative provision. It is otherwise with dilatation. This is evidence that the ability to overcome an abnormal resistance no longer exists. The organ now begins to give way, and having once began to yield, the dilatation goes on progressively, with more or less rapidity, according to various circumstances, intrinsic and extrinsic. After a time, the dilatation predominates over the hypertrophy. This is an important epoch in the progress of cardiac disease. From this period, distressing symptomatic events referable to the cardiac disease are liable to occur, viz: dyspnœa, orthopnœa, and general dropsy. Prior to this epoch, although the hypertrophy and dilatation have existed and been gradually increasing for many months, or even years, the patient may not have experienced symptoms which led him to suspect cardiac trouble. It is at this epoch that frequently cases for the first time come under medical observation. The evils and danger connected with the disease arise mainly from the weakness and incompleteness of the heart's contractions. The cavities are constantly over-distended, and as the muscular power of the organ diminishes more and more, the over-accumulation of blood, and consequent dilatation, progressively increase. Death, not attributable to an incidental occurrence or an intercurrent affection, but due directly and exclusively to the cardiac disease, takes place in consequence of over-distention and a loss of muscular power amounting to paralysis. When death is in this way produced, it occurs after a prolonged period of intense suffering. Happily (we may almost say), a fatal result as thus produced, in a majority of cases, is anticipated by some one or more of various contingencies and accidental events, such as the formation of clots in the heart, œdema of the lungs, pleuritic effusion, apoplexy, etc., etc.

Regarding the evils and danger of dilatation, as well as the compensatory and conservative character of hypertrophy, it is sufficiently obvious that the objects of treatment should be to maintain the former and postpone the latter. Hence it is clear that measures relating either to diet, exercise, or medication, which weaken the muscular power of the heart, must prove hurtful in proportion to their potency, since they conflict directly with the objects just stated. That the practice of treating patients affected with valvular lesions and enlargement by blood-letting, low diet, and extreme quietude, has been mischevious, is not less intelligible on rational grounds than evidenced by clinical experience. The objects of treatment which have been stated, relate to any period in the progress of the disease anterior to the time when the dilatation predominates. When this time arrives, the recovery of predominating hypertrophy is impossible, and the object of treatment which remains, is to retard, as much as possible, the increase of dilatation, by measures which tend to support the muscular vigor which the heart still retains.

EDITORIAL AND MISCELLANEOUS.

A NEW YEAR.

"Who 's born for sloth? To some we find
The ploughshare's annual toil assigned;
Some at the sounding anvil glow;
Some the swift-sliding shuttle throw;
Some, studious of the wind and tide,
From pole to pole our commerce guide;
While some, of genius more refin'd,
With head and tongue assist mankind.
In every rank, or great or small,
'Tis industry supports us all."

And by the kind hand of industry are we led on from year to year, through weal and through woe, until, unconscious of a life-time gone, we stand on the brink of that eternity whose depths no man knoweth. Industry brings occupation, and she is the scythe which sharpens by wear, and cuts time away from our hurried feet, so that to us the months are like mile posts and the new years as mail stations to the railroad traveller. Here, in the great whirl of city life, who that is occupied can stop to count the gliding months? and now when the new year takes him by surprise, who can do more than bow gracefully as he hastily passes, and breathe hurriedly "a happy new year?" To the editor only is granted the privilege of quietly seating himself in his old arm chair, and, by the magic of his pen, sending forth to hundreds, at one stroke, the salutations of the season; and, availing ourselves of that grateful privilege, we now issue our most cordial greetings to all who have been the patrons of our humble efforts during the past year. To some of our patrons this salutation will be more agreeable than to others. Many have been industrious, their industry has been rewarded, they have faithfully discharged their obligation to the editor, and communion with him is pleasant; many others, equally industrious, equally rewarded, see him only as the relentless creditor, and their faith in the sincerity of his greeting is shaken. These would prefer that there were no new years—no editorial greetings.

But we shake hands with you all, acknowledging *our* indebtedness to those first named, and reminding the latter that they are indebted to us.

THE MEDICAL SCHOOLS OF NEW ORLEANS.—In the great struggle for personal advancement, how seldom is it that men stop to consider the value of their fellow-men to society at large! Yet there is no man engaged in any reputable enterprise who does not, by well-directed exertions, contribute far more to the general weal than to his own. It is this very concentration of individual effort that gives character and influence to communities, and it therefore becomes the duty of each individual to foster the efforts of his neighbor. True, all men are not alike beneficial to society, because, however industrious men may be, some, in their too great anxiety to advance only self, improperly direct their efforts, and loss to all is the inevitable result. Another obstacle to the advancement of communities, too, is found in a strange trait of human character, viz: jealousy of the success of our fellow-men—a trait born with the natural ignorance of man, and nurtured by sloth, which is the boon companion of ignorance. There are a set of agrarian spirits in every age and every community, who believe in having every thing in common, *except* ambition and industry; and such men are always more willing to hiss than to applaud. They look at their fellow-men through the single magnifying glass of suspicion—never through the stereoscope of charity, which alone can bring them out in bold relief and show them as they are. This spirit, and the men who foster it, are the clogs in the wheels of society, which not only interrupt the general progress, but, by the rude friction they induce, necessarily impair the usefulness of every cog they touch. True, the ponderous wheel usually grinds them to dust and jolts along over them, but their detritus is hard to brush away, and they mix with and deteriorate the oil of industry. But, says the philosopher, all things were made for some wise end—even the candle-bug that flits across our field of vision, the musquito that makes night hideous, or the lowly tumble-bug by the road side. Like Uncle Toby, we must acknowledge the amplitude of this world for all, and when we catch one of these flies in human shape buzzing around our ears, we must raise the window sash and cast him forth.

There are those out of New Orleans who regard our people only as a commercial community, who take no interest in anything save cotton, sugar, flour, and all the thousand and one articles of trade, and who either do not educate their children at all, or who send away to the North and elsewhere all whom they do educate. To a great extent such has been the character of our city; but a gradual change has long been taking place, until, at the present time she is not her former self. Our public schools are to be found in every section of the city, sowing education freely among the masses; and private schools hold forth their signs on almost every square. Our population is not wholly a migratory one; we have an immense native and acclimated element, and these have learned that home is the best place for them. We have a flourishing law school, to which fine classes of the best young men in the State annually come, and for more than twenty years medicine has been taught in our midst; and this brings us to the consideration of the subject which heads this article, viz: the *Medical Schools of New Orleans*.

It is a self-evident proposition, that educational institutions, of every kind and description, give character to a city such as mere commercial pursuits cannot impart. They are both industrial pursuits to a certain extent, but the former indicates intellectual progress of the community (real civilization), while the other imparts the mere idea of a growing money-ocracy, which is as unstable as the basis on which it is planted. The pocket of man is filled by speculation to-day, and to-morrow it is emptied; but the well stored mind cannot be robbed, except by Him who gave the mind itself. The individual, then, who is engaged in educational pursuits, whether in teaching the infant tongue to lisp the alphabet, or in expounding the great principles of law, theology or medicine, is most to be honored—most highly entitled to the sympathy and protection of those around him. Strip us of education, of mental culture, and we shall soon become stripped of the very clothes we wear, and lapse into very barbarism. We contend that there is but one aristocracy legitimate in its essence and universally acknowledged, and that is the aristocracy of the mind. We have never met a man with superior education to our own, that we did not deem him that far better than ourself, and we have never met a candid man who did not think with us. Mental culture carries with it moral culture, as all will perceive who study the community around them (reasoning on the rule, and not on the exceptions); hence we are forced to believe that in every other respect than the educational one, all men are equal. The uneducated mind requires to be set in gold in order that the possessor can perform what is really but a vicarious function in society; but the educated mind not only dims the lustre of the precious metal, but shines brighter as it approaches isolation. Go with us into the humblest walks of life and ask what constitutes the real, the only superiority of one man over another, and even those who cannot express themselves fully in words will make you understand that it is education. They are eqnal to the best in all the attributes with which the maker endows us, but they lack the artificial attribute, which more thoroughly developes our best natural traits and keeps in check our worst. The man, then, who is engaged in diffusing education is of greater moral value to society, and must, and does, receive credit for his exertions at the hands of all good men. In this most important view, then, the Medical Schools of New Orleans are of benefit to our city, of benefit to our State, and of benefit to all surrounding States favoring them with their patronage.

But if we look at these institutions only in a pecuniary point of view, only through the limited circle of "the almighty dollar," who can deny their great advantage to our city and State? This year there will be in New Orleans nearly 600 students of medicine. Some spend more money, some less; but any man who has passed through the student's life, knows that the average expenditure must be $500, which means that, in the aggregate, nearly, if not quite, $300,000 is left by them in our community; and this is scattered widely. Those who teach the classes cannot show more than a gross receipt of one-fifth of the whole amount; the remaining four-fifths go to hotels, boarding houses, restaurants, tailors, shoemakers, hatters, etc.,etc., etc. For the receipt of a sum like this, a community must be, and is, prepared; cut off the whole, or any great part, and great inconvenience is the result.

If there be a man, then, in New Orleans, whose appreciative powers can only be aroused by the metallic demonstration, he has but to look at this picture and be satisfied. To all evil spirits, we would say, if you have any reasons for withholding your smiles on institutions like these, you have surely *many* reasons for the suppression of frowns. There is no individual whom they can injure, and they must inevitably shower benefits on all.

Who can blame us, then, for feeling, or even expressing, a special pride in having been in part the humble instruments which have urged into developement the rich resources of New Orleans for students of medicine? Only four years has honorable rivalry existed between the two schools of this place, and what is the result? The number of medical students has increased from 200 to 600, and all are working with an ardor known only where competition exists. Every day we are congratulated on having established another school, for through its establishment has the rich mine of our city come to be known among men. Graduates of the northern cities come here and express their utter astonishment that they should not have known of so much superior advantages right at their own doors, and our students return to us by preference. All this makes us feel that we have not labored in vain, and that even those who sneered when we first put our shoulders to the wheel to help Medical New Orleans out of the mud, will soon smile. Already have we seen this change in the physiognomy of some, and we look for it in all; and we rejoice (not exult), because we shall have proved ourselves honest workers for good, and the enemies of evil.

The Medical Schools of New Orleans are honorable and useful institutions then, and as such are entitled to the *sympathy and the protection of all good men.*

To the friends of the school we in part represent, we have to make the most flattering report. The institution has a larger class than ever before, and its progress is onward. Its alumni stand fast to a man, its friends from other sources are increasing daily, and it is a fixed fact. We have succeeded, and we are determined to deserve success.

DR. IGNATIUS LANGER.--We regret to have to give unpleasant publicity to the name of any man who bears the honorable title of Doctor of Medicine, but duty impels us to make the following record, inasmuch as it emanates from a source entitled to our highest consideration, and as the action it indicates has doubtless been taken in support of the honor and dignity of the profession. We are utterly astonished at the loose conduct of our American Medical Association in relation to Dr. Langer. But *experientia docet.* We trust they will be more jealous in future.

"DAVENPORT, SCOTT CO., IOWA, November 1, 1859.

"D. W. BRICKELL, M. D., AND E. D. FENNER, M. D.—*Sirs:* I am instructed by the *Scott County Medical Society* to notify you officially of the expulsion of *Dr. Ignatius Langer*, a member of that society, and to state briefly the object of this communication.

"The reasons for his expulsion are fully set forth in the subjoined *preamble* and *resolution*, which were passed at the last regular quarterly meeting of the society, and which need no further comment.

"At the last annual meeting of the *American Medical Association*, held in Louisville, *Dr. Langer* appeared a self-constituted delegate, and by the courtesy of that body was allowed to read a paper on the subject of *Subcutaneous Injections;* he was also appointed a *Committee* to report thereupon at their next annual meeting, to be held in New Haven.

"In the name of the *American Medical Association,* he has issued a *circular,* addressed to the profession generally, requesting their coöperation and assistance in preparing this report.

"In this *circular* he has inserted a clause implying his good standing in the *Scott County Medical Society,* of which he was a member, as well as another clause, casting an unjust imputation on the daily conduct of all practicing physicians.

"From these facts you may judge of the necessity for this communication, and may, advisedly, use your discretion in replying to the above mentioned *circular.*

"Very respectfully, your obedient servant,

"JOHN M. ADLER, *Secretary.*"

"PREAMBLE AND RESOLUTION

"*Passed at the Quarterly Meeting of the S. C. M. Society, Oct.* 25, 1859.

"Whereas, at the previous meeting of the *Scott County Medical Society,* held July 26th, 1859, *Ignatius Langer* was found guilty of a charge then preferred against him, of making and repeating from day to day certain unwarrantable examinations and manipulations of a pregnant female, previous to the time of labor, with the pretended object of discovering and correcting a mal-position of the fœtus in utero, and of publicly proclaiming the object and intention of his repeated visits to said patient; and whereas, said Langer, in the face of an unanimous vote of this society condemning the practice, still persists in his avowed determination of requiring females to submit to any examination of their persons which he may think proper to make at any time during their pregnancy, which is contrary to all authority and usage, and derogatory to the dignity and decency which should ever characterize the conduct of a physician and gentleman; and whereas, certain other charges, then preferred against him, which were submitted to the investigation of a special committee, have been well and fully substantiated by testimony adduced by various persons, members of this society, and others, and which charges constitute special and distinct violations of the letter and spirit of the code of ethics, by which this society is governed; and whereas, during this investigation, said Langer has publicly uttered various contumelious remarks regarding the members of this society, individually, and as an association of professional men, thus exhibiting his disregard of the opinions and actions of the society, endeavoring to cast upon it the imputation of ignorance and the want of a generous spirit of tolerance; and whereas, this society deems it due to its own self-regard, and to the standing which it has ever endeavored to sustain among all honorable organizations of its kind, to protect itself against these aspersions, to discountenance and condemn, in the most emphatic manner, the indecent and disgusting practices above mentioned; therefore, be it

"*Resolved*, That the said Ignatius Langer is no longer worthy of fellowship with us, having forfeited all claims thereto; that hereafter we individually and collectively will hold no further professional intercourse with him, and that he be and is hereby formally and finally expelled from the membership of this society."

SOUTHERN STUDENTS IN NORTHERN MEDICAL COLLEGES.—As our printer is closing the last editorial matter, dispatches come to our community, stating that southern students of medicine are leaving Philadelphia for the south in large numbers; and the same dispatches contain an indirect charge against the medical schools of the south, of complicity in this unhappy affair. It is scarcely necessary that we should notice the baseless slander, and we would not do so, except under circumstances such as now excite our people throughout the land. For the New Orleans School of Medicine, then, we repel the charge. This school has met with signal success as the result of fair and honorable dealing, and even if she were not thoroughly imbued with a correct idea of moral right and wrong, she could have no interest in inciting our southern youths at the north to leave the institutions to which they have attached themselves.

But while we were writing the above, here comes a telegraphic dispatch from southern students in a northern medical college, expressing their determination to leave, and asking our faculty on what terms they will receive them. They have paid for the lectures north, but they will not remain where they are. The faculty have duly considered the extraordinary condition of these young men, they regret as sincerely as men can do the state of affairs, but they cannot close their doors on them, and they have told them that they can finish their course in the New Orleans School of Medicine by paying the matriculation fee, and if any desire to graduate, such must pay the necessary fee.

Once more we say, nothing but sincere regret must be felt by every good man, that such events are occurring in the schools of the north, for it evinces a lamentable difference of opinion on vital questions concerning our country's welfare, before which consideration all others sink into insignificance. We deplore it, and we wish from the bottom of our hearts that young men who have attached themselves to northern schools this season could be content to remain and receive that for which they have paid, and which will be so well bestowed on them; but if they cannot, we cannot say, our doors are closed on you because of your honest convictions.

Small Living Fœtus.—There has lately been born in a private infirmary in this city, at full term, a living child of only two pounds and nine ounces weight. The little specimen of humanity survived two weeks. The mother was laboring under serious syphilitic manifestations, and hence, no doubt, the partial blighting of the child within her.

New Professor.—In the organization of the new school at Chicago, we notice the name of Dr. Titus Deville, of Paris, as Professor of Anatomy. The school has done well to secure the services of so able a teacher as Dr. Deville, and the profession of the country must acknowledge him an acquisition to our ranks. Dr. D. has acquaintances in this city.

New Medical Journal.—We have received No. 1 of the *Chicago Medical Examiner*, a monthly journal, edited by Prof. N. S. Davis, of the new school, and Dr. E. A. Steele. The number is neatly issued, and is full of matter of interest. We exchange with pleasure.

The New Medical School at Chicago.—From Prof. N. S. Davis's journal we learn that the new school organized by himself and others (the Medical Department of Lind University), opened with a class of eighteen, which has ultimately increased to twenty-six—there being fourteen in the junior and twelve in the senior department. Being the practical advocates of improvements in medical teaching in this country, we cannot be understood as having the least desire to chill the ardor of those engaged in the same hon orable pursuit; and we hope our motive may be thoroughly appreciated when we express our fears that the innovations of our Chicago friends have been too thorough. A good old maxim is, *festina lente.* Step by step we can revolutionize the system of teaching, but it cannot be done in a day. We fear the faculty of Lind University will waste their valuable strength in too sudden and radical changes. We hope not. Their motives are noble, and they deserve the fullest reward. But they must have the substantial aid of larger classes, and that speedily. We speak from experience. We have succeeded, and know what is necessary to success.

BOOKS AND PAMPHLETS RECEIVED.

A Treatise on Fever: its Causes, Phenomena, and Treatment; with an Appendix containing Reviews on some Female Diseases, some Diseases of Children, etc. By REZIN THOMPSON, M. D., Nashville, Tenn. Published by the Author. 1859.

This neat little volume, of 400 pages, comes to our table unheralded, and for that reason has attracted our attention. All books are puffed at the present day, and hence a growing skepticism in relation to their value, and an unwillingness, on the part of the mass of the profession, to read them. In the volume before us we find clearly, yet modestly, enunciated the views of one who has evidently been thinking whilst engaged in the arduous business of practicing medicine. The author seems to have regarded his earthly mission as unfulfilled without this humble record of his observations by the way. Ours is not the task of reviewing the result of his labors, as such is not the province of our journal. But we can say that we have been refreshed and instructed by the perusal of the volume; and, while we are not prepared to endorse it in its entirety, we are altogether disposed to recommend it to our readers.

We may hereafter quote from the author's therapeutic experience, and, in the mean time, beg to assure him that we are under obligations for the copy before us.

Proceedings and Debates of the Third National Quarantine and Sanitary Convention, held in the city of New York, April 27th, 28th, 29th and 30th, 1859. Reported by CHAS. COLLAR and WM. ANDERSON, phonographic reporters, New York. Board of Councilmen, September 19th, 1859.

We are very much obliged for this interesting volume of over 700 pages, on a subject of so much interest. We earnestly hope that much good may flow from the great exertions of so many able and industrious men.

Fifth Annual Report to the Legislature of South Carolina, relating to the Registry and Returns of Births, Marriages, and Deaths, in the State, for the year ending December 31, 1858. By ROBERT W. GIBBES, JUN., M. D., Registrar. Columbia, S. C., 1859.

We are under renewed obligations for this most valuable and interesting report. It does great credit to the worthy registrar, and is an honor to South Carolina. When will Louisiana arouse from her lethargy and do likewise?

LIST OF PAYMENTS TO DECEMBER 19TH, 1859.—Drs. J. E. Sutton, $15, vols. 3, 4, 5; P. H. Wade, $10, vols. 6 and 7; J. R. Somers, $5, volume ending December, 1860; Hugh Elliot, $5, vol. 5; J. M. Rogers, $5, volume ending December, 1860.

EXCERPTA.

ON THE CAUSES OF THE INDEPENDENCE OF BRONCHITIS IN RELATION TO PNEUMONIA. *By M. Robin.*—These M. Robin has never found stated by any author, and that arises, he believes, from the faulty notions which prevail as to the elementary structure of the organ of respiration. It is customary to represent the tissue of the lungs as a mere continuation or expansion of the bronchi, which is as incorrect as it would be to represent the uriniferous tubes of the kidney as a continuation of the uretha, bladder, and ureter. As long as he believed in this doctrine, M. Robin never could comprehend why bronchitis should not constantly be passing into pneumonia. Nothing, however, can be more distinct than the pathological anatomy and symptoms of the two affections, which may be sometimes observed co-existing, but never passing from the one to the other.

The differences between the two diseases, marked as they are, must remain incomprehensible to those who consider the entire tube as lined with an uninterrupted mucous membrane from the larynx to the extreme subdivisions into *cul-de-sacs.* The real state of things is, however, as follows:—Having passed through a certain number of subdivisions, the bronchi, now no more than one or two millimetres in diameter, lose their portions of the cartilaginous rings, and have no longer transverse muscular fibres, elastic longitudinal fibres, or a mucous membrane separable from the bronchial wall properly so called. They no longer possess a prismatic epithelium with vibratile cilia—losing, in fact, all the characters of bronchi. The pulmonary or respiratory canalicules, erroneously termed ultimate bronchial ramifications, continue to subdivide, and terminate in rounded or ovoid *cul-de-sacs* (improperly called bronchial or pulmonary cells), which at the period of birth are from five to eight hundredths of a millimetre large, and in the adult attain the size of one or two tenths. These canals have not the structure of the bronchi, but are characteristic of the pulmonary parenchyma. They are surrounded by intimately interlaced bundles of elastic fibres, mingled with fibres of the laminated tissue, formed of fibro-plastic elements, and of vessels. These vessels form on the interior of the canalicules (which present slightly projecting folds), a network differing from that of the bronchi. This network consists of large capillaries, which nearly touch each other, so as to leave intervals smaller than the capillaries themselves. It is distributed on the very tissue of the walls of the pulmonary canalicules (there being no mucous membrane separable from the elastic parenchyma), and is only separated from the cavity of these conduits by a layer of pavement epithelium with large nuclei, which commences where the cylindrical epithelium of the bronchi ceases. Thus the pulmonary canals, in which hæmatosis is accomplished, have a different structure to that of the bronchi which convey the air necessary for respiration. It is not possible to detach a mucous membrane distinct from the pulmonary parenchyma and the laminated tissue, in which, or on the surface of which, the capillary network is distributed, as is the case in the bronchi still provided with cartilages. In this way we may explain the rapid absorption which takes place in the lung, as compared with the slower absorbing power of the organs provided with mucous membranes—as also the easier rupture of these capillaries, with discharge of blood, or of substances injected by the air passages. There is, in fact, as great a difference in texture between the bronchi and the pulmonary parenchyma, as between that of the excretory duct of a gland, and of the gland itself.

It will therefore be seen that affections seated in two portions of the apparatus so different, may well present great distinctions in their course, etc. But a still more important cause also explains the rarity of the extension of inflammation from the bronchi to the pulmonary tissue.

Thus, in the case of bronchitis, the portion of the capillary system which is the seat of inflammation belongs to the general capillary system, properly so called, and receives its blood from the aortic or red-blood system; but in the case of pneumonia, the capillaries of the lesser circulation, deriving their supply from the black blood of the pulmonary artery, are in question. It is at the expense of this black blood that the morbid products of pneumonia are formed, as in hepatitis it is at the expense of the black blood of the vena porta that abcess of the liver is produced. We know, in fact, that although the pulmonary artery accompanies the bronchi throughout their entire extent, it gives no branch to them, nor to the interlobular partitions, and that it does not anastomose with the bronchial arteries. The latter entirely cease at the points where, or at a little beyond where, the small cartilaginous nuclei disappear from the bronchi, *i. e.* where the bronchial canalicules are only one millimetre, or a little more in diameter. This is the exact spot where the capillary distribution of the venous artery begins to take place between the contiguous walls of the pulmonary canalicules, forming on their sub-epithelial surface a network of quite a special type of mesh-work, which is also found in the lesser circulation of all classes of vertebrate animals, even to the branchial plates of fishes. Beyond the bronchi, the bronchial arteries only furnish *vasa vasorum,* and branches to the interlobular laminated tissue, which extend as far as the pleura.

These circumstances supply not only an answer to the question proposed in this article; but also explain some of the differences which distinguish the nature and progress of inflammation of the lungs from that of other parenchymatous organs. It explains also the differences of pneumonia, according to age, differences not exhibited so decidedly in the inflammations of any other organ, and which arise, not only because the parenchyma and the respiratory canalicules undergo notable modifications, but also because modifications in its nature and course are produced upon the inflammation by the nature of the circulation. These are no where so decided as in the lesser circulation, which unites anatomically and physiologically the two sides of the heart, although its disturbances are often only caused indirectly, in consequence of lesions of the left side of the heart, instead of directly by changes on the right side.

Independently of the special type of distribution presented by the pulmonary capillaries, differing from that of the bronchial, their structure also differs in some points from that of the general capillaries. They are, in fact, amongst the largest of the body, and their parietes present smaller, more numerous, and more approximated nuclei than those of the other capillaries. It is, however, to be observed that the capillaries of the portal system in the liver present the same peculiarities of structure. These facts are not without their value, when we call to mind that inflammation is a disturbance of the capillary circulation.—*Gazette Médicale*, 1859. No. 2.

NEW YORK PATHOLOGICAL SOCIETY.—*Caput Femoris removed for Morbus Coxarius.*—Dr. S. next presented a specimen of the head of a femur, which he removed from a little child about eleven years old. The operation was performed on last Thursday. The child had been suffering from the disease for four years; and, not being in the hands of a regular practitioner, nothing was attempted for his relief. I saw him for the first time on last Saturday a week, and found him extremely enfeebled, and attenuated to the very last degree, pulse one hundred and sixty-five, lying on his back, with legs drawn up very much, one at an angle of sixty degrees. A portion of the trochanter major was denuded. In addition to all this, there existed four or five abcesses in the vicinity, which freely communicated with the hip-joint.

After a consultation, it was resolved to attempt the removal of the head of the bone. The patient was put under the influence of chloroform, and a careful examination made. The head of the bone was found to be denuded, and gave the sensation of grating against bare bone; but from the very peculiar position assumed by the limb, it was doubtful to his mind whether the acetabulum might not be perforated; but not being able to examine it to his satisfaction, he was unable to make up his mind definitely in relation to the point. After the delay of a few days, in order to try if possible to get up the strength of the patient, the operation was performed, as the only chance left for saving his life.

On removing the head of the bone, he found it fastened through an opening into the acetabulum; and, on withdrawing it, a large quantity of green-colored, fœtid pus escaped. The opening into the acetabulum corresponded in size and shape exactly with the portion of bone that occupied it, so that it formed a complete plug to prevent the escape of the confined matter; as far as the finger, passed through this opening, could reach, it was found that the internal surface of the ileum, ischium, and pubis was denuded of periosteum, and evidently in a state of caries.

The periosteum, being peeled off from the surface of these bones, formed a cavity or bag for containing the pus. All the carious portions were removed by the bone-forceps, leaving almost nothing behind but the wing of the ileum. During all this operation, the periosteum and peritoneum were not interfered with, and formed the only partition between the pelvic cavity and the external world. This was done on Thursday, and the pulse, previously to the operation, was one hundred and sixty when the child was asleep. The chloroform was administered while he was in that state, so that the child did not wake up until after the operation. Dr. Jones superintended the administration of the anæsthetic, and too much credit could not be given for the manner in which it was done.

The evening following the operation, the pulse fell to one hundred and twenty, and remained so till the Sunday following, when it had decreased to one hundred and twelve. The patient was dressed for the first time that day, and presented a very favorable appearance. The wound was nicely washed and injected, and the doctor began to entertain strong hopes of recovery. Since that time the patient has been going on tolerably well, and notwithstanding everything was done for the little fellow, in the way of nourishment, he feared that he had not vitality left to repair the damages.

The doctor explained the perforation of the acetabulum, by referring to the fact that, eight months before the operation, the patient had fallen from the bed, and struck upon the trochanter of that side. The head of the bone being thus driven through, peeled off the periosteum, and formed the pocket for the pus.

Dr. Bauer remarked that the case was not a fair one for operation, that its performance was with the view only of allowing a free exit to matter, and rendering the last hours of existence more tolerable. He had watched the case carefully, and was satisfied the patient was far more comfortable after the operation, than he had been during the eight months before. He maintained, that the operation, in the case referred to, demonstrated the fact that it could be performed with benefit to the patient, not only when the head of the femur was involved, but also the acetabulum. He stated, that the number of operations for hip-disease has reached the handsome number of ninety-two, and almost *fifty per cent.* recovered. Very little blood was lost, hardly more than half an ounce at any time. In eight cases, he had no occasion whatever to ligate an artery. In Dr. Sayre's case, one small vessel was tied, and this would not even have been required, were it not for the extreme feebleness of the child.

The question presented itself to his mind, in that connection, how it came, that abcesses and large deposits of purulent matter could remain and be manufactured in the body for months, and not producc that disease denominated pyæmia. He thought it was time to take up the matter and study it more closely, especially as the latest work on surgery had revived all the old doctrines in relation to that form of disease, notwithstanding many of the theories had been exploded twenty-five years ago.—*N. Y. Med. Review, and Buffalo Journal.*

Rectal Alimentation Questioned. *By D. Chipley.*—Nutritive injections, as they are termed, have been proposed to meet the exigencies of certain cases. I know that this process is approved by high authority, and I know not where to find authority of equal weight for the opinion I entertain; but my conviction is so thorough that I shall not hesitate to avow it. I do not believe that one particle of real nourishment can enter the system in an available form through the rectum. And I think it is hazardous to entertain a different opinion. In many cases it is so much easier to throw fluids into the rectum than into the stomach, that we may be induced to rely on this method until it is too late to save the patient by any other means. This, then, is a practical question, and one of great importance. The view we take of it may involve even life itself.

No one will contend that this process finds any support in theory constructed in the light of modern physiological science. How can the rectum convert any species of aliment into chyle? And where are the lacteals to introduce it, if it really existed? The idea of rectal alimentation ignores the wisdom which has constructed a complicated set of organs, the concurrent action of which is absolutely necessary to such an elaboration of food as is required to fit it to become incorporated with the body, and thus to sustain its vitality. Follow the food from the time it enters the stomach until it is in part poured into the circulation to supply the wastes of the system, and at every step you will find changes, no one of which can possibly take place in the rectum. Is there any reason to suppose that the changes wrought by the action of the gastric and pancreatic juices and bile are not essential to the preparation of food for assimilation, and for the nourishment and support of the body? Where in the rectal region will you find any organ capable of producing that change which is effected in the chyle as it passes through the lacteal glands? How different are the qualities of this fluid when it issues from these glands from those which it presents when it enters them!

I shall be told that poisons are taken up from the rectum and carried into the circulation, and why not nutritious food? I am aware that venous absorption goes on there, and a person may be destroyed by throwing poison into the rectum. But that is a perturbing agent, and requires no change or elaboration to render it capable of producing certain effects. Food requires to undergo material alterations before it is fitted to sustain the body. If it may be taken up from the rectum without change, and nourish the body, why not inject it into the veins at once, and thus effect directly what we seek to do through the rectum?

There are no lacteals provided to perform the important function of absorbing nutritive matters from the lower bowels. It cannot be that the lymphatics fulfil this office, as is readily demonstrated by a comparative analysis of the contents of the two sets of vessels. The fluid contained in the lymphatics is composed of a much larger proportion of water than that in the lacteals, while the prportion of albumen, fibrin, and especially fatty matter, predominate in the latter. This material difference in the constitution of lymph and chyle is fatal to the idea of its affording any support to the body. Although the function of the lymphatics is not definitely determined, it is certain that they form no channels for conveying new material to the system.

"The corpuscles of the chyle are the same as those of the lymph. In addition, however, we have in most instances the *molecular base*, which is present in the lacteals from the very commencement, even from the *villi* of the intestines. It seems to consist of almost infinitely small particles of oleaginous or fatty matter, thrown into this form by contact with the pancreatic secretion, as so well proved by Bernard." But in the rectum we have no pancreatic juice to perform this important office, and we know of no substitute for it.

But the main support of the idea of rectal alimentation, is to be found in the reports of cases said to have been sustained for considerable periods of time by this means alone. But these cases prove nothing, unless it can be shown that man is incapable of living for a like period in the absence of this or any source of nourishment. Now, if we can show that persons have survived longer periods of abstinence without these injections, then the conclusion attempted to be drawn from these cases is absolutely unauthorized.

How long it is possible for man to survive without food, is an unsolved problem. We have a general approximate rule, but numerous remarkable exceptions are scattered in the records of medicine. I might appeal to that wonderful case related by Hildanus, of sixteen years abstinence from food, or that reported by Prof. Ricci, of Turin, covering a period of two years and a half, and many others of a similar character, but I will not, although of the last case I might speak with some confidence, as the bowels showed at the *post-mortem* a condition that precluded the possibility of anything passing through them. But I set these remarkable cases aside for others that cannot be questioned, and they will show as great endurance without nutritive injections as can be found with them.

I have quoted from Dr. Burrows a case of forty-five days' abstinence, and the patient recovered. Dr. Currie, on the authority of Ramazzini, gives an account of a man who abstained from food sixty-four days, and ultimately recovered. A prisoner at Toulouse perished of inanition on the sixty-third day. Many are reported on undoubted authority to have fasted forty, fifty, and sixty days. Now, if in these cases rectal feeding had been practised, they would have been, it is probable, published as indubitable evidence of the practicability of nourishing the system through the rectum. I do not doubt the cases reported by Guislain, as sustained for two or three months by rectal alimentation, would have lived just two or three months without such aid.—*Amer. Jour. of Insanity, July*, 1859.

APPLICATIONS IN ACNE.—When the affection is slight and recent, after removing all causes which seem to maintain it, we should always commence its treatment by stimulating spirituous lotions, which may be employed tepid or even hot. When very slight, a large teaspoonful of the following solution, added to a glass of tepid water, may be applied night and morning:—R. Hydr. bichlor. 1; alcohol, q. s.; aq. dest. 100 parts. In certain forms of acne, especially the punctuated and sebaceous, local astringents effect a certain cure. M. Ferrat especially recommends alum or peroxide of iron—R. Alum, 30 parts; aquæ 300 parts. R. Ferri perox. half-a-part; axung, 30 parts. It will be better to commence with half these strengths, increasing them afterwards. The lotion may be applied night and morning, and the ointment on going to bed, In severer cases protoiodide of mercury should be substituted for the iron, viz. protoariod. half-a-part, and lard 30 parts. The dose of the proto-iodide may be afterwards doubled; and if the cure is long delayed, or imperfect, the bi-iodide must be substituted, employing from one to seven grains every evening. In intense acne we may commence with the bi-iodide.—*Bulletin de Thérap.* Tome lvii., p. 270.

Can the Garden Slug live in the Human Stomach?—*By David Dickman, Esq., M. R. C. S.*—Sarah Ann C——, aged twelve years, had, for the last two months, complained of feeling sick at times, particularly after meals. On the 5th of August last, she vomited up a large garden slug, which was alive and very active. On the 6th she brought up two, both alive; and on the night of the 7th she was seized with violent vomiting and relaxation of the bowels, and threw up five more, of various sizes, the smallest two inches long, and all alive.

On the morning of the 8th, when I first saw her, vomiting and purging had ceased, and she complained of great pain up the left region of the stomach, and headache. I gave her opiate powders, which relieved her in every way till the afternoon of the 9th, when she felt something crawling up her throat. This sensation brought on the most violent efforts of vomiting to expel what she felt at the upper part of her throat, and she frequently introduced her fingers to seize what she felt, but did not succeed. I happened to call just when all this suffering was beginning to subside, at which time the sensation was felt lower—about half way between the mouth and the stomach. As expulsion by vomiting seemed hopeless, it occurred to me that ammonia and camphor might destroy the creature, and that the digestive powers of the stomach would do the rest when the animal was dead. The dose was repeated every four hours for two days, and afterwards three times a day for two days more, with entire success. An aperient powder was given every night. After the first dose of the ammonia and camphor, all sensation of movement ceased; and she now appears as well as ever she was.

During the summer she had gone frequently into the garden and eaten freely of its produce, especially of lettuces, of which she was very fond. It appears to me that a family of very young slugs had been feeding on the lettuces, which the child had swallowed with very little mastication, and the gastric juice not being strong enough to act on them when alive, they fed and grew in their new habitation to their usual dimensions. During the time they must have been in the stomach she was fonder than ever of vegetables and fruits, and would put aside the meat on her plate, and eat the vegetables only.

The three slugs that came up first were not preserved; but, at my request, the five others have been kept alive, and fed on vegetables, which they preferred being cooked, having at first refused to eat them raw. They are now fed on raw vegetables.

Another circumstance connected with my interesting patient is, that she was born without the left hand. During pregnancy the mother was frigthened by a porcupine that an organ boy had in the street; and an impression ever after remained on her mind that something would not be right with the child's hand.—*London Lancet*, Dec., 1859.

Porchester-place, Oxford-square, Sept., 1859.

Wanted a Wet Nurse.—The wages of a wet nurse are too often the salary of sin, and carelessly lavished by perverted luxury. One woman neglects her duty, and suborns a poorer to the like offence, that she may buy immunity for her offspring from the sufferings to which she dooms the child of the hireling. When a wet nurse is not a necessity, her functions are disgraceful, and her presence is a reproach. It is impossible not to reflect on the possible fate of that nursling deserted by its natural guardian, or, at least, robbed of its intended pabulum. Only necessity justifies the employment of wet nurses; and it is probable that if the demand for their services were limited to those cases in which alone they can be justly claimed, enough would be found who could supply the mother's place without neglecting sacred duties to their own offspring. Thus a fertile source of disease amongst children would be removed. We record with satisfaction the following resolution, passed by the Weekly Board of Governors of that admirable and most useful institution, the British Lying-in Hospital, Endell street, Bloomsbury, which fully recognises a principle often advocated in these columns, and adopts a judicious rule which we would gladly see enforced at other similar institutions :

"The Board, considering that it is advisable to refrain as far as possible from encouraging the employment of wet nurses, except in peculiar cases, resolved—

"Any person desirous of engaging a wet nurse at or by means of this hospital, must produce a certificate from the medical attendant, stating that, for safety of the mother or child, it is absolutely necessary that a wet nurse be engaged.

"The matron shall keep a book in which to enter the names and addresses of applicants for wet nurses ; and this book, together with the medical certificate forwarded to her, shall be laid before the Weekly Board from week to week for inspection."—*Ibid.*

A MEDICO-LEGAL CASE—*To the Editor of the London Lancet.* —Sir : On the 29th of April last I was requested to visit a butcher, a stout, plethoric man, of middle size, and about fifty years old, represented as having been taken suddenly ill, and dying. It was about nine o'clock A. M. when I first saw him. His wife stated that he had left his home about seven o'clock the same morning, when she observed nothing unusual in him, but that he complained of his head very much during the last fortnight. Previously he had had several apoplectic attacks ; it was a family complaint. His countenance was natural. His eyes were not suffused, but each pupil was fixed and dilated at least a quarter of an inch, bearing strongly the appearance of pupils immediately after a sudden death. His extremities were extended, very rigid, and affected with frequent, sudden, and very violent convulsive jerkings. His breath was slow and stertorous ; pulse full, jerking, and without distinct beat. He was bled to two pounds. Immediately the symptoms somewhat abated, perspiration commenced, and he showed an inclination to vomit. Eighteen leeches were applied to the temples. In two hours consciousness returned. On the following morning he was apparently in his usual health, when, for the first time, ecchymosis of the neck was discernable.

What can be learned from this case? Can the condition of the pupils be considered pathognomonic? On my first visit, I considered the case to be ordinary apoplexy, but was greatly struck with the anomalous condition of the pupils. Judge of my surprise on being informed immediately afterwards that the symptoms were the result of hanging. Should the case be adapted to excite enquiry and promote science, it is at your disposal.

I am, Sir, yours obediently,
M. D. THOMPSON, F. R. C. S. &c.

Stalybridge, Sept., 1859.

HÆMATIC CAPSULES.—M. Foy, a talented pharmacien of Paris, proposes to give to chlorotic, weak, or convalescent patients, capsules containing extract made from the blood of the calf, sheep, or ox. The preparation of these capsules is extremely simple; no desiccation, trituration, or pulverization is required. The blood is simply to be evaporated in vacuo, and to the extract a certain quantity of phosphate of soda is to be added to assist the gastro-intestinal solubility of the solidified fibrin. The proportions are, extract of arterial blood of calf, one pound; phosphate of soda, thirteen drachms: mix thoroughly, and make capsules of from five to ten grains. Each capsule contains a small quantity of iron, this very minute amount insuring the absorption of the metal, and assimilating the hæmatic capsules to the natural chalybeate waters. From ten to twenty capsules a day may be given, beginning with those made with the blood of the calf.—*London Lancet*, Dec., 1859.

HYGIENE—*Building of Hospitals.*—Dr. Mackenna, in a paper in the hygienic requirements of hospitals, gives the following advice to his fellow-colonists: "As it is not likely that we shall in this colony require another large hospital, I shall pass on to enumerate the advantages that smaller ones ought to secure. For a population of eight or even ten thousand, I think one of fifty beds should answer. The site, aspect, and drainage should be the best it is possible to procure; the ventilation should be, as it could easily be, made perfect; the wards should hold six or eight beds; the ceilings should be eighteen or twenty feet in hight—as I am convinced that the higher a ward is the better, and that no extension in other directions can compensate for it. The impure air should be drawn gradually off by two or more of Dr. Chowne's syphon tubes of large size, the exterior opening of which should be controlled by a cover and vane to prevent downward drafts in hot winds. The ventilation carried on by the aid of louvres and other permanent openings in the roof, is liable to the objection that the hot winds force their way downwards, and instantly expel the cooler air, to the great danger of delicate patients. This can be remedied by changing them to a common tube controlled as above. A cold chamber could, and indeed should, be made in the underground, which by a simple arrangement of evaporating surfaces would procure for one or two, or more chambers above, a supply of air several degrees colder and moister than the outside temperature, by which many an otherwise fatal disease might be effectually checked. No kitchen or other office which could in the slightest degree tend by its ascending odors to taint the air of the wards or passages, should be tolerated, and every care should be taken to keep this story thoroughly ventilated. The passages and wards should be flagged with glazed tiles set in cement, which do not retain the moisture after being washed, nor imbibe impurities, and the walls and ceilings should be coated with a glaze of silicated paint. A permanent verandah should face those aspects much exposed to the sun, and the windows should be protected by kuskas tatties. No hospital should have more than a ground and upper story, or be without a pair of wards apart from the house for noisy and unruly patients. Lifts and Arnott stoves (for occasional use in winter) are indispensable in every hospital, and the wards should communicate with each other and with the offices by speaking-tubes. Every mechanical improvement in baths, water-closets, and especially those for the removal of patients before and after operations, etc., etc., should be provided."—*Brit. and For. Med. Chir. Rev., Oct.*, 1859.

CHERRY-LAUREL WATER IN BURNS.—M. Franchini states that he has found this application of great service, even in very severe burns, while, even when these have been of large extent, it has produced no ill effect. He combines eight parts with one hundred parts of gum syrup (a mixture of tragacanth mucilage and simple syrup), renewing the application every twelve hours, moistening the compress a few minutes before attempting to detach it.—*Ibid.* Tome lvii. p. 331.

INFLUENCE OF SMOKING IN THE PRODUCTION OF CANCER OF THE LIP.—M. Bouisson, of Montpellier, has recently stated that the great increase of this affection is due to the practice of smoking; and the late M. Roux attributed also to this the fact of his having met with a larger proportion of cancerous affections of the lips during the latter than during the former half of his prolonged Surgical career. M. Fleury, of Clermont, is however, of a different opinion; for, deploring equally with M. Bouisson the pernicious practice of smoking, he doubts whether cancerous affections of the lips is one of its effects. Between 1845 and 1855, he has operated upon 86 patients, 71 being men, and 15 women, and not one of these being less than 43 years of age. They were all of the peasant class, chiefly from among the mountains of Puy-de-Dome and the vicinity, where smoking is almost wholly unpractised. It is a remarkable fact that the inhabitants of the surrounding plains, and of the towns, where smoking prevails much more, are almost completely free from the affection.—*Gazette Médicale*, No. 35.

NEW RESEARCHES INTO THE NATURE OF HYSTERICAL CONVULSIONS. *By Dr. Briquet, Physician to the Charité, etc.*—(Archives Générales, June, 1859.) The author's object in the present paper is to prove—1. That hysteria consists of a series of allied acts, and that the various phenomena associated with it, however contradictory and incongruous they may appear, depend upon certain simple pathological laws. 2. That in the great majority of instances one is able to distinguish clearly between such attacks and those of epilepsy and eclampsia. 3. That we possess means sufficiently powerful to arrest them when we choose. Dr. Briquet analyzes 254 cases, in which he was able to obtain accurate details, and finds that in 48 cases only the first attack occurred without the presence of an appreciable exciting cause, or could be regarded as resulting from a progressive increase of the hysteria; that in 206 cases it was brought on by an exciting cause, and that these causes were as follows: emotions, 54; fright, 47; disappointment, 30; painful menstruation, 23; ill-treatment, 16; witnessing convulsions, 9; venæsection, 8; anger, 4; convalescence from serious illness, 4; magnetization, 2; and with equal frequency, coïtus, application of the speculum, cauterization of a chancre in the vagina, extraction of a tooth, a fracture, an attack of intermittent fever, and erysipelas of the face.*

Dr. Briquet combats the Hippocratic doctrine that hysteria is essentially of uterine origin. He finds that in all hysterical convulsions, pain appears to emanate from some point of the body; and that out of 221 patients whom he examined minutely on this point, only 2 appeared to indicate the uterus as the *point de départ,* whilst in 165 the epigastric region was the seat of diseased sensation, in 29 the head, in the others the neck, the extremities, or some part of the trunk. After analyzing the various symptoms of a complete attack of hysterical convulsions, he concludes that it is nothing more than a manifestation of those acts by which the emotions and painful sensations are made palpable; and that the convulsions are made a secondary effect, resulting from the pain, and their character varies according to the susceptibility, habits, age, constitution, or the passions of the patient. "Hysterical convulsions are nothing but the unregulated, involuntary repetition of the complex movements which may be executed during the ordinary acts of life; the mental disturbance is merely a repetition of the moral impressions or of the ideas which have influenced the brain in its lucid condition; it is a reminiscence or reproduction analogous to what we see in dreams." All this has nothing to do with the uterus. The distinction between the convulsions of eclampsia or epilepsy, and those of hysteria, consists, according to our author, in the limitation of the movements of the former, and in their presenting no analogy with the ordinary acts of life, which is so characteristically the case in hysteria. The other distinctions between the two forms of convulsive action are gone into by Dr Briquet, but need not detain us. His treatment of the hysterical attack consists in the administration of chloroform by inhalation, so as to produce sleep—a plan which he has adopted for twelve years with almost uniform success, the effect being to arrest the convulsions; neither coma, somnolence, nor dangerous syncope resulting from the procedure. He also recommends the employment of topical applications of chloroform to those parts of the surface that are painful during the free intervals, by which means the pain itself and the attacks it originates may be arrested.—*Brit. and For. Med. Chir. Review, Oct.,* 1859.

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* It is to be observed that the numbers do not tally with the author's totals.

Epistaxis of Alarming Character Arrested by Injections of the Perchloride of Iron. *By E. J. Fountain, M. D., Davenport, Iowa.*—I am induced to publish the following case from reading the report of "*Death from Epistaxis,*" occurring in the practice of Dr. Triplett, of Virginia.

About two years ago, I was summoned in haste to see a young man who was reported to be in a dying condition from loss of blood. The bleeding had continued uninterruptedly for about thirty hours, escaping constantly from the nostrils, and frequently thrown out in clots from the posterior nares.

He had been attended by a German physician, who had not succeeded in arresting the hæmorrhage, and before my arrival he had abandoned the case, from motives which I need not here mention.

I found him in a frightful condition, his face, hands, linen, and much of the bed-clothing, and the floor, being covered with blood. In one corner of the miserable apartment, where many people were crowded, was a pile of rags and towels, saturated with blood.

He was so impoverished that he could not support himself in an upright position, and the extreme pallor of his skin and colorless lips indicated plainly that he had lost a large quantity of blood.

I immediately plugged the nostrils, anteriorly and posteriorly, in the usual way. I supposed this would arrest the hæmorrhage, but I was mistaken. Very soon the blood escaped through the plugs in each direction, and the flow returned as profuse as before. I then removed the plugs, and rolling up two quite large pieces of fine, dry sponge, I introduced them as before, and so firmly, that I thought it would be impossible for a drop of blood to escape. I then left him, and returning an hour after, I was astonished to find the blood escaping as freely as ever. I again removed the plugs, and washing out the nostrils by injections of cold water, I pressed into each a roll of *tannin*, made into a soft mass with a little water and glycerine; I packed the nostrils full of this, but it did no good. I then introduced the plugs a third time, using compressed sponge, and forcing them in so firmly, that I feared I might have great difficulty in removing them. I then had ice applied constantly to either side of the nares, and kept the patient perfectly quiet. This answered the purpose for about half an hour, and then the bleeding returned as bad as ever. By this time the patient experienced the alarming symptoms of excessive loss of blood—ringing in the ears, occasional blindness, etc. The case looked desperate to me, while the patient, and even some of his friends, protested against further effort, as useless and cruel. I saw that it *must* be checked very soon, or it would surely be fatal. I removed the plugs with some difficulty, and washing out the nares, I passed into each a piece of nitrate of silver, about a quarter of an inch in length, carrying them back with the forceps about four inches. I also introduced a curved injecting instrument, perforated towards its extremity with a number of small openings, and forcibly injected a strong solution of the same caustic. This did no good.

It now occurred to me that the perchloride of iron might answer the purpose. I soon procured it, and after washing out the nostrils as before, I injected a quantity of the undiluted perchloride into each nostril. This immediately checked the bleeding, and proved an effectual remedy.

Twenty-four hours after this the bleeding again returned, when I repeated the injections, and with the same happy effect.

There was no recurrence of hæmorrhage after this, and the patient soon recovered, so as to go about, but for quite a long time felt the effects of the loss of so much blood, which had been so excessive as to leave him but a very slender hold upon life. I know not in what other way it could have been saved; and the publication of this may be the means of rescuing others in similar circumstances.—*Amer. Med. Monthly.*

Warren's Hæmostatic.—A correspondent requests us to publish the formula for Warren's Hæmostatic—or, *styptic balsam*, as it is very improperly called. This preparation has been highly recommended in hæmoptysis, hæmatenesis, epistaxis, and menorrhagia.

It is said to act by its sedative power in diminishing the force of the circulation, and by its astringent qualities in contact with the bleeding vessels.

The formula, and its mode of preparation, is as follows:

℞. Acid. sulp. (*by weight*) ʒv.
Ol. Terebinth,
Sp. vini rect. aa f. ℥ij.

Place the acid in a Wedgewood mortar, and the turpentine slowly, stirring it constantly with the pestle; then add the alcohol in the same manner, and continue stirring it until no more fumes arise, when it may be bottled, and should be stopped with a ground stopper.

It should be prepared from the *purest* materials, and when done, it should exhibit a dark, but clear red color, like dark blood; but if it be a pale, dirty red, it will be unfit for use. The dose is forty drops, and the method of using it as follows:

Put a teaspoonful of brown sugar in a common sized teacup, and rub in forty drops of the preparation until it is thoroughly incorporated, and then slowly stir in water until the cup is nearly full, when it should be immediately swallowed. This dose may be repeated at intervals of an hour, until three or four doses are taken, if necessary, and its use should be discontinued when fresh blood ceases to flow.

After standing a few days, a pellicle forms upon the surface, which should be broken, and the liquid below it used. It does not deteriorate by age, if tightly stopped.

On Inflammation of the Cervical Lymphatic Ganglia.—(*Adenite Cervicale*).—*By H. Larrey, Member of the Council of Health of the Army, etc.*—We translate the following summary of a valuable memoir on this subject, read before the

Academy of Medicine, Paris, 21st May, 1849, by the author:

"This disease is very frequent in the army, and therefore well known to military surgeons."

"It has been too exclusively regarded by most authors, ancient and modern, as allied to scrofula."

"It is in fact often scrofulous, but is also oftener due to other general causes, such as the influence of atmospheric localities, regimen, habits, particularly such as are inherent in the life of the soldier."

"It is often produced by local causes, such as affections of the scalp, face, ears, mouth, etc., also by mechanical compression of the neck."

"Its seat is in the parotid, sub-maxillary, mastoid, subhyoid carotid and supra-claviclar regions."

"It may be acute or chronic, and present variable local characteristics, without necessarily giving rise to general symptoms."

"When uncomplicated, it is generally easily diagnosticated."

"Its course is sometimes rapid, oftener slow, and it often lasts longer than the cause which has produced it."

"It may terminate by resolution, or by suppuration and ulceration, or by induration and degeneration. Its anatomical characters are consequently very variable."

"Its prognosis is often unfavorable, so much so as to require discharge from the military service."

"It requires, according to its causes, forms, and terminations, divers means of treatment—preventive, curative, hygienic, medical and surgical."

"It sometimes requires extirpation, from considerable hypertrophy, chronic induvation or degeneration, and the operation, although sometimes delicate and difficult, is in these conditions generally followed by favorable results."—*Chicago Medical Journal.*

WISCONSIN BONES.—Prof J. D. Whitney exhibited to the Association for the Advancement of Science, fossil bones and teeth, found in the northwest, in the lead region. In the cap rock, as it is called by the miners, there are fissures and cavities from fifty to one hundred feet beneath the surface. These cavities are usually lined with lead ore. In them are found the teeth of the mastodon; also of the buffalo. The teeth were in a good state of preservation. They are found in many localities. He believed that this part of the country never was subject to the drift, as no boulders were to be found. Beneath the surface, to the depth of fifty feet, vegetable formations are found. The legitimate conclusions were, that this **was** the home of the mastodons, and that they existed immediately prior to the advent of man.—*Scientific American.*

EMBOLI.—The following conclusions respecting the obstructions of vessels by solid bones or fibrinous concretions, are well drawn up by Professor Schutzembergen: 1. Fibrinous concretions or solid bodies formed in the heart or great vessels, may be detached from their seat, carried along in the current of blood, and so obstruct different secondary branches of the vascular system. 2. This fact is neither absolutely rare nor exceptional; it constitutes a special and very peculiar affection of the arteries, which has been called by Virchow "Emboli." 3. This affection was for a long time misunderstood; is now shown to exist both by scientific induction and clinical and microscopic observation. 4. It has been observed as a consequence of gangrenous inflammation of the pulmonary veins; of organic affections of left side of the heart; and of atheromatous degeneration of the large arterial trunks. 5. Its most frequent cause is derived from fibrinous or calcareous concretions, and polypoid excrescences developed on the mitral valve, and carried along in the current of blood. 6. When the patient does not succumb under a first attack, another generally follows. Thus the attacks are multiplied. 7. The arteries most frequently found affected are—the sylvian artery, the internal carotid, the arteries of the upper and lower extremities, the splenic, renal, external carotid, and mesenteric. 8. The obstruction ordinarily occurs at contracted points of the arteries. 9. If, in consequence of the obstruction, a collateral circulation is established, only temporary disturbance is produced. 10. But if no collateral circulation is established, then follow organic alterations, mortifications, and gangrene, dry or humid, partial or general. 11. In the parenchymatous organs the obstruction of the arterial branches produces sanguinary or circumscribed fibrinous infarctus. 12. In the brain the infarctus usually occasions yellow softening. 13. In the spleen and in the kidney the infarctus produces a special lesion, exactly circumscribed, ordinarily of a conical shape, varying in color according to its age, and often denser than the rest of the parenchyma. 14. Emboli in the cerebral arteries produce functional disturbances analogous to an attack of apoplexy. The symptoms do not differ from those of cerebral hæmorrhage or acute softening.—*Med. Times and Gaz.*

ON THE ACTION OF SALTS UPON THE RED CORPUSCLES OF THE BLOOD WHILST IN CIRCULATION—*By Br. Botkin, of Moscow.*[*] The mesentry of the frog was found most convenient for watching the influence of these agents, partly owing to the want of pigment and partly by reason of the superficial bifurcation of the blood vessels. A drop of solution of chloride of sodium (15 per cent.) being added, a change in the circulation is remarked previous to any narrowing of the calibre of arteries and veins. The interspaces between the single blood-corpuscles disappear, the corpuscles being interrupted in movement and irregularly round. In some of the smallest vessels a complete plugging up occurs, whilst in neighboring larger ones the circulation is obviously accelerated. In a few minutes the smallest vessels plugged up begin to show a movement which extends to them from the vessels still retaining blood-movement, so that they gradually become freed from their plug of corpuscles, and in about half an hour completely resume their usual condition. If, alter the formation of such a plug, one covers the preparation with water, the process of plugging is immediately arrested; and on again adding some of the saline solution the above-described changes in the blood vessels extend to all the capillaries in the field of observation, and the capillaries of larger diameter become stopped up. The changes become observable in the veins and arteries, and in the last also an evident pulsation.

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[*] Virchow's Archiv. Band xv. Hefte 1, 2, p. 173.

After some hours, on being left to itself, the circulation becomes reëstablished (firstly in the large, and then in the small vessels), but not to the original rapidity.

A stasis so produced can easily be dissipated by the addition of water; but if some of the saline solution be added in its place, the circulation in the arteries immediately ceases, probably owing to interruption of the communication between the arteries and veins by means of arrest in the capillaries. At the same time a starting movement begins in the veins, by which at each systole the blood-corpuscles move from the periphery to the centre, and at the commencement of the diastole recede in the opposite direction. Finally, this starting movement in the veins passes into an unbroken stream from the centre to the periphery, at first being very rapid, and then becoming slower and slower, and altogether ceases. The veins and capillaries appear to be filled with blood, whilst in the arteries the movement continues.—*Brit. and For. Med.-Chir. Review.*

PRESERVATIVE TREATMENT AGAINST THE CONSECUTIVE EFFECTS OF MEASLES AND SCARLATINA. *By M. Scoutetten.*—The occurrence of a bad epidemic of measles at Metz, in which several children were lost by negligence during convalescence, has induced M. Scoutetten to re-publish an account of his preventive management, which he thinks is too little known, although from more than twenty-seven years' experience in its use he can speak confidently as to its efficacy.

It is well known that the early period of measles and scarlatina is not the one in which serious accidents are usually to be feared. It suffices, in order that the eruption should run a regular and easy course, to administer some tepid, demulcent drink; not to cover the child with an excess of clothing; to avoid exposure to sudden chills; and to watch over the condition of the functions of the internal organs. It is at the commencement of convalescence that danger is really to be feared, and to avoid this, various precautions are recommended, such as a prolonged continuance in-doors, etc., etc. Minute regulations of this kind, which can never be fulfilled, are rendered unnecessary by the adoption of the following method:

When convalescence has commenced, that is to say, when redness of the skin no longer exists, the entire body should be rubbed with oil. Some olive or almond oil having been warmed by means of a bath, a piece of flannel is to be dipped in it, and with this the whole surface, without excepting either the face or the feet, is to be rubbed. When the friction is finished, the patient is to be put into bed, where he remains for about two hours. Next morning he takes a tepid bath, in which he remains for an hour, when he goes to bed again. When the skin has become quite dry, that is in two or three hours, a new friction with the oil is to be made. These two frictions and one bath frequently suffice to prevent all danger. Still, when the eruption, especially in scarlatina, has been very considerable, when the dead epidermis is not completely detached, and when the skin is dry and floury, we must renew the means until the natural suppleness is restored. The author has seldom had to go beyond four frictions and two baths; and, after these precautions, hundreds of cases have convinced him that no danger or inconvenience results from allowing the convalescents to go into the open air. But the entreaties or tears of the child to have the face excepted from the frictions must be disregarded—negligence in this respect often leads to swelling and infiltration of the cheeks and eyelids.

In explanation of the efficacy of this method, it must be remembered, that during the convalescence the functions of the skin are suspended or impeded, and the kidneys and mucous membrane of the respiratory and digestive canals tend to supply its deficiencies. Hence we have a thick, sedimentary, and sometimes an albuminous urine, obstinate diarrhœas, which may promptly lead to emaciation or death, obstinate coughs, sore throats, pneumonia or pleurisy, with effusion; together with infiltrations into the serous tissue or accumulations in the serous cavities. These accidents are especially produced by chilling the skin, inflammation having rendered it more sensible, while its functions are impeded by an inert epidermis obstructing its pores.—*M-iteur des Hôp.*, 1859. No. 13.

VITALITY OF TOADS.—M. Victor Legrip, of Chambon, has transmitted to the editor of the *Cosmos* an account of various experiments on this subject. M. Legrip put some toads in chambers hollowed in the earth to the depth of sixteen inches, placing them on a tile, and covering them with a pot. Others were immured between two discs of glass in plaster cells, without access of air; and some were imprisoned in masses of mixed plaster, which touched every part of them. The first were examined monthly, and exhibited no marks of decay till towards the twelfth month, their excretions being retaken as nutriment. They lived thus, on an average, for twenty-three months. The second lot, examined through the glass, presented the following phenomena: Abundant excretions of the debris of insects and larvæe; torpor while in darkness; sparkling of the eye at the approach of light; powerful efforts to escape; progressive emaciation till death, which took place generally after fifty-six days. Among the third class, some toads were living after twenty-eight months of absolute sepulchre. These facts prove that the toad can live a long time without aliment or aëration; he lived longer in the chambers where his movements were unimpeded, than in the cells where he could hardly change his position; but his life was very much longer when completely imbedded in the plaster. Not being able to move, he lost nothing; and thus it will be easily comprehended that alimentation was much less necessary, and that his life, as if suspended, might continue for an indefinite period. M. Legrip states that toads are not only inoffensive, but exceedingly useful in gardens, and that he is not at all surprised at the increasing commerce in these animals, who live exclusively on worms, caterpillars, and insects, great and small, and are thus the protectors of a host of useful and ornamental plants. Market gardeners will find them invaluable.—*Med. Times and Gaz.*

THE SPECIFIC CHEMICAL AND MICROSCOPICAL PHENOMENA OF GOUTY INFLAMMATION—*By A. B. Garrod, M. D., F. R. S.*—Dr. Garrod remarked that many and discordant views were held concerning the nature of gouty inflammation, and such diversity of opinion arose from the fact, that up to the present time no characteristic structural change had ever been demonstrated to accompany it; the object of his communication was to supply that deficiency, and prove that special chemical and microscopical phenomena invariably attend true gouty inflammation. After alluding very briefly to the views held by the ancients, and within the last century by Murray Forbes and Wollaston, and by Cullen and his followers, and of the difficulties which each had to contend with in applying their hypotheses to the explanation of the various symptoms of the diseases, he proceeded to speak of his discovery of the constant presence of uric acid in the blood in gout, and his subsequent researches in the nature of that disease. From these he first drew the three following conclusions. 1. In *health*, the blood contains minute traces of urate of soda and urea, and probably of all the principles destined for excretion; but the quantities are so small, that the most careful and refined analysis is required to demonstrate their presence. 2. In *gout*, the blood is invariably rich in urate of soda, and uric acid can be readily crystallized from it. 3. In by far the greater number of diseases the blood is free from an abnormal quantity of uric acid, but in certain cases of albuminuria, lead-poisoning, and other affections, its presence can be demonstrated, and still no gouty inflammation ensue. Lastly, in many gouty subjects, the same condition exists in the intervals of the paroxysms. From these conclusions, Dr. Garrod considered it evident that something more than the mere presence of urate of soda in the blood was required to produce gouty inflammation, and his next object was to ascertain its nature. For this purpose a careful examination of the joints which had suffered was required, and within the last few years many opportunities had fallen to his lot; the subjects of these examinations are divided into four classes. 1. Subjects of chronic gout with extensive chalk stones. 2. Subjects of gout with no appreciable deformity, and no visible deposits of chalk stones, except one or more specks on the external ear. 3. Subjects of gout in whom no trace of chalky matter was externally visible, and in one case only eight attacks of the disease had occurred. 4. Subjects in whom only a single joint (the ball of a great toe) had been affected with gouty inflammation, or in whom some joint had only been once slightly inflamed. These examinations proved beyond the possibility of a doubt that in the very slightest forms of the disease, as well as the most severe, a structural change invariably occurs, and that this change when once produced remained, if not permanently, at least for a very lengthened time. After detailing the microscopical and chemical characters of the deposit producing this change, Dr. Garrod finished his communication by stating that he considered the facts which had been brought forward warranted him to conclude that—"Specific, chemical, and microscopical phenomena invariably accompany gouty inflammation, and these consist in the deposition of urate of soda in a crystalline form within the cartilages and ligamentous structures of the joints, and that such deposition is altogether pathognomonic, never being found in any disease other than true gout;" and, again, that "such deposition is probably the cause rather than the effect of the inflammatory action." Lastly, the author pointed out the great importance of ascertaining the true nature of the disease as a means of conducing to its rational and successful treatment.—*Med. Times and Gaz.*

ON SOME MODIFICATIONS OF STRUCTURE PRESENTED BY RED BLOOD-GLOBULES IN THE ADULT, IN CERTAIN MORBID CONDITIONS —*By Dr. C. Robin.*[*]—The author mentions six altered states which are brought about in the globules of blood which has become extravasated:—

1. When such globules exist infiltrated amongst tissues or in a clot, or suspended in the liquid of a cyst or other closed cavity, a certain number are found which have become spherical or slightly angular, having lost their central depression. Their tint and contour are generally more decided than natural.

2. Some, whether lighter or darker than in the normal condition, are remarkable for granulations contained. These are generally discoid, and void of any central depression, but some are spherical. The granulations vary from three to five in number, and when few, are situated at the periphery of the disc. When as many as five or six, they form a more or less complete circle. They strongly refract the light, and possess a bright yellowish or red centre, dissolving in acetic and sulphuric acid along with the rest of the globules, also liquifying in potash and ammonia; and after a period of from twelve to sixteen hours, also dissolving in plain water.

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[*] Brown-Séquard's Journal de la Physiologie, p. 290. April, 1858.

3. Globules exist which are quite colorless, having lost all their hæmatosine. These retain their form, but are rather small and delicate, and generally are mixed wtih the varieties before-mentioned, often containing here and there spherical granulations with clear and dark outline; the outline being in some cases as it were double, that is, circumscribed by two circular parallel lines, and this is specially so in the globules which have lost color but not become angular, and which exist in a small number. These pale colored globules are less influenced by the action of water, and are smaller than others.

4. In numerous cysts, especially those found often in the thyroid gland, varicose veins, vesculæ seminales of old subjects, and in most apoplectic clots, blood globules are met with in a state of accumulation, forming ovoid, angular and elongated masses, and attaining the size of one-tenth of a millemetre. They are always without a depression, and slightly distended, being paler than usual, and of a reddish-brown color. Sometimes all contour is lost, and they form a more or less homogeneous mass. At times the masses are surrounded by amorphous substance.

5. When blood globules have remained for a long time in the liquid of various kinds of cysts, they assume a reddish-brown or even a chocolate color.

6. Certain blood globules which have been for a long time in acid urine, or are vomited up in diseases of the stomach, lose their color, become pale at their centre, the central depression looking very large and transparent, whilst the periphery is very decided. They are less amenable to the influence of water and other reägents than when in the natural state.

Bonaparte in an Epileptic Fit.—" I attended him," said

Talleyrand, "to Strasbourg, and was alone with him in the house of the Prefet—in one of the chambers there—when he fell, and foamed at the mouth. '*Fermez la porte!*' he cried, and from that moment he lay as dead on the floor. Bertier came to the door; '*On ne peut pas entrer!*' The Empress came to the door; '*On ne peut pas entrer!*' In about half-an-hour he recovered; but what would have been my situation if he had died? Before day-break he was in his carriage; and in less than sixty hours the Austrian army had capitulated." (At Ulm.)—*Rogers's Recollections.*

The Waters of Vichy.—M. Devergie has lately delivered a lecture, called a "Visit to Vichy." He therein informs those concerned that "there is no drinkable water at Vichy." Plenty of mineral waters, if you please, but none potable in the ordinary sense of the word. One of the first necessities of life is entirely wanting; the water is charged with lime, won't dissolve soap, nor cook dry *legumes.* A pleasant resort this for the gouty and gravelly inclined!

Sir James Wylie, the Physician of the late Emperor of Russia, has left, by will, a large sum for the foundation of a *Clinique* at the Academy of Medicine of St. Petersburg. His executors have offered sums of three thousand rubles and downwards for the three best plans offered for the proposed building.

All men of genius, according to M. Moreau, are men in different stages of madness; genius is a neurosis.

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CLINICAL REPORTS OF CASES

OBSERVED AT THE NEW ORLEANS CHARITY HOSPITAL, 1859-60.

By AUSTIN FLINT, M. D., Prof. of Clinical Medicine, etc., in the N. O. School of Medicine.

My service at the Charity Hospital for the college session of 1859-60, now in progress, commenced on the 28th of October, 1859, and will continue to the end of the session—viz: to the first of April, 1860. Up to the present time, January 5th, 1860, many cases of interest have come under observation. These are recorded as fully as time and opportunity have permitted. In this duty I am assisted by Mr. L. E. Profilet, one of the resident students of the hospital, whose devotion to clinical studies cannot fail to lead to an accurate and extensive knowledge of disease, and for whose assistance I gladly avail myself of this opportunity to express my acknowledgments. I commence in the present number of the *Medical News and Hospital Gazette*, a new series of reports, which, by request of the editor, it is intended, shall be continued, so as to present, in some measure, a retrospect of the clinical experience of the present collegiate session.

The subject of this report will be the history of a single case illustrating a highly important variety of Bright's disease, characterized, in this instance, by the absence of one of the most constant and obvious of its symptomatic events, viz: general dropsy.

Fatty Degeneration of the Kidney. Albuminuria. Rheumatic Gout. Absence of General Dropsy. Uræmic Poisoning. Death. Autopsy.

Dennis Martin, aged 46, bricklayer and boatman, was admitted October 31st, 1859. The patient was a Canadian by birth, but had lived in this city and neighborhood for thirty-five years. He stated that he had been subject to attacks of rheumatism for the previous eight years. During this period one or two attacks had occurred each year. The disease had usually continued from two to four months. Between these attacks his general health had been good. He had been accustomed to drink brandy, more or less, daily for thirty years. He estimated the average amount drank daily at about half a pint. He stated that in the attacks of rheumatism the shoulder, elbow and wrist joints had never been affected. The disease had always been limited to the knee, ankles and joints of the fingers and toes. In 1846 he had some affection of the chest, and was treated by Dr. Wedderstrandt of this city.

He was seized by one of his rheumatic attacks three days before his admission into the hospital. The left knee was affected when he entered, being swelled, reddened, hot and painful. The right knee began to be affected the day after he was admitted, and became considerably swelled, reddened, hot and painful, these symptoms then diminishing in the left knee. Both ankles and the metatarsal joints of the great toe subsequently became affected; also the second metacarpal joint of the little finger of the right hand. There existed moderate febrile movement, anorexia and occasional perspirations. On careful examination nothing abnormal was discovered pertaining to the heart. The treatment for the first three days was the muriate of ammonia, ℨ ss. three times daily. The carbonate of ammonia was then substituted, in doses of gr. x four times, and at night a dose of the sulphate of morphia.

Nov. 8th. The affection of the joints had nearly disappeared, some tenderness only remaining. There was no febrile movement; the skin was cool and moist, and he had return of appetite. The treatment was continued. On the next day the right wrist was found to be swelled, reddened, tender and painful—no other joints being affected. The carbonate of ammonia was increased to grs. lx daily; the sulphate of morphia to be given in doses of gr. ss. once or twice daily, if the pain was severe. On this day it was noted that the right foot was slightly œdematous on the dorsal surface. The patient declared that he had never had swelling of the lower extremities except in connection with his rheumatic attacks. There was no œdema of the face and no swelling of the abdomen.

On the 8th, I obtained some of the patient's urine, chiefly to ascertain if the carbonate of ammonia had rendered it alkaline. It did not occur to me that the evidence of Bright's disease would be determined by this examination. Prof. Crawcour kindly made the examination for me. The reäction with test paper was acid. The density 1.010. It was highly colored. It deposited albumen in abundance on exposing to heat and adding nitric acid. On examination microscopically the sediment was found to contain epithelial casts, oil globules and blood globules in small quantity.

Nov. 11. The right wrist, elbow and shoulder joints were affected; and the left elbow was beginning to be affected. He perspired freely. The heart sounds were normal, and there was no cardiac murmur. The urine continued to abound in albumen and also in the chlorides. It was found under the microscope to contain large waxy and epithelial casts.

Nov. 18. The joints were nearly free from the rheumatic or gouty affection, and there was no febrile movement. He complained that the ammonia occasioned nausea, and it was discontinued, the sulphate of morphia being prescribed *pro re nata.* No œdema existed. He began to sit up on this date; his general aspect was not notably morbid and his appetite was tolerably good.

Nov. 22. The patient continued to sit up daily, and his general aspect had improved. There had been no return of the affection of the joints. The treatment since the preceding record was the sulphate of morphia to procure sleep, with liniment to the tender joints, and full diet.

A quantitative analysis of the urine was kindly made by Prof. Crawcour, who furnished me with the following statement: "Color, reddish yellow—intensely acid—density 1.010. Deposits albumen copiously by heat and nitric acid. On standing, it lets fall a sediment consisting of desquamative tube casts, waxy casts, granular matter, oil globules, and a very few globules of blood. The quantity passed in twenty-four hours is far below the average, being only 28 fluid ounces (forty a low average); amount of urea 223 grains (450 a low average). There is, therefore, deficiency of water; great deficiency of urea, and a remarkable want of salt excreted. At the same time the kidney must be in a state of great disorganization, in an advanced stage of Bright's disease."

Prof. Crawcour verbally predicted to me that the patient would not probably live longer than two months, notwithstanding, as regards his present aspect and general symptoms, he seemed to be convalescing. It will be seen that his prediction was fulfilled.

Nov. 29. The patient complained of great pain in the abdomen; of frequent small dejections containing blood, and of belching wind, with relief. The abdomen was moderately tender on pressure, but not distended, and no muscular rigidity. There was moderate febrile movement—no nausea nor vomiting. The urine was quite small in quantity, from 6 to 8 ounces only being passed in the twenty-four hours; its color was red, and it deposited albumen in abundance. There had been no affection of the joints since the last record. The feet and limbs were not œdematous. The treatment consisted of anodynes by the mouth and rectum, and the bitartrate of potassa with digitalis, with a view to diuresis.

Dec. 2. The patient had reported more comfortable the two days previously, but on this date the abdominal pains were again severe, and attended with frequent, small, bloody dejections. All along he had complained of an accumulation of wind in the stomach, which was expelled from time to time, with temporary relief. The subnitrate of bismuth was prescribed, the bitartrate of potassa continued, and enemas of laudanum occasionally given.

Dec. 3. The patient on this day, when not disturbed, was constantly somnolent, and was roused with some difficulty. After replying indifferently and imperfectly to questions, he immediately relapsed into a somnolent state. The face was congested. The dejections continued to be frequent, and sometimes took place in bed. The pulse was 100, and feeble. Regarding the diarrhœa as a vicarious effort to eliminate urea from the blood, an ounce of the sulphate of magnesia was prescribed. The urine was almost suppressed. There was no œdema.

Dec. 4. On the evening of this day it was noted that the patient was moribund. The skin was cold and moist; the pulse scarcely appreciable, and not much, if at all accelerated. He was delirious, throwing himself about, and constantly desirous of being assisted out of bed to go to stool. The dejections continued to be small and frequent. I could not ascertain that any urine was passed. The skin appeared to emit a urinous odor. His vision appeared to be impaired; he directed his movements to grasp objects wrongly. The pupils were equal, and were neither dilated nor contracted, but they remained motionless on approaching a light.

Death occurred during the night.

Post mortem examination twelve hours after death.—The body was not emaciated; a thick layer of fat covered the abdomen. No œdema.

The right lung was attached by old, but not very strong adhesions over the upper lobe: no adhesions on the left side. The lungs were healthy.

The heart was estimated to be a little larger than the average size. There was more fat than usual on the right ventricle. The muscular tissue appeared to be healthy, but it was not examined microscopically. The left cavities contained only a few soft, black coagula. The right ventricle contained a mass of colorless fibrin closely intertwined with the tendinous cords, extending into the auricle, and sending a round prolongation into the pulmonic artery. The aortic, mitral, pulmonic and tricuspid valves were normal.

No liquid effusion existed within the pleural cavity. There was the usual amount of transparent serum within the pericardial sac.

The stomach and intestines presented externally a healthy aspect. The omentum was loaded with fat. The anterior surface of the liver was adherent by old adhesions to the abdominal walls. The organ appeared to be of the normal size. There was no evidence of recent peritonitis, and no effusion within the peritoneal sac. The bladder was empty, and firmly contracted. The stomach and intestines were not examined internally.

The kidneys were somewhat enlarged, one weighing 7 oz. and 2 dr., and the other 5 oz. and 5 dr. They were invested with a layer of fat, which extended deeply into the hilus, into the pelvis, and between the cones. The organs were lobulated. The capsule was easily stripped off, and the surface presented a mottled, tawny aspect. The cortical portion was increased at the expense of the medullary, and in some situations the latter was nearly replaced. The cut surfaces presented a pale color, with occasional fibrous lines. In each organ was a cyst as large as a filbert, which contained a clear liquid. These were near the surface, being bounded externally by the capsule; and at the base of one of the cysts the pyramidal body was displayed. Crystals of uric acid were found in some of the pyramidal tubes. These were apparent to the naked eye as small, white, solid collections, and their character was determined by the microscope. Scrapings and thin sections of the cortical portions, under the microscope, contained fatty globules and large oil drops in great abundance, with epithelium filled with fatty granules. A faint outline of only a few malpighian bodies and convoluted tubes was discovered. Dr. Smyth, assistant surgeon of the hospital, assisted in the microscopical examination.

Remarks.—The autopsy in this case revealed extreme and universal disorganization of the secreting portion of the kidneys, connected with fatty deposit. This accorded with the diminished quantity of urinary principles during life, eventuating, before death, nearly in suppression of the urine. The excretion of urea being diminished, and at length almost, or quite, arrested, uræmic poisoning was the result of the accumulation of this principle in the blood. The phenomena which occurred during the last two days of life, are to be thus explained. Somnolency and mental apathy were the first symptoms, and, succeeding to these, delirium, imperfect vision, coma and death. The diarrhœa which existed for the last two or three weeks, was probably due to an effort on the part of the intestinal mucous membrane to eliminate the urinary principles accumulating in the blood. This supplementary action may have postponed for a time the toxical effects of the uræmia, but it was incompetent to prevent, at length, their development, and the fatal issue of the disease.

Several interesting pathological questions arise in connection with the facts contained in the clinical history of this case. One of these relates to the nature of the poisonous agent in the circulation, and the mechanism of its deleterious action. The excretion of urea, without doubt, is emphatically *the* important function of the kidneys. It is settled that this excrementitious product is pre-formed in the blood, and merely separated by the renal organs. The experiments made in 1847, by Bernard and Barreswill, of removing the kidneys in inferior animals, proved that the accumulation of urea in the blood takes place under these circumstances; that death occurs in two, three or four days, preceded often by coma and convulsions; that the gastric and intestinal secretions become more abundant after this operation, and contain the products of the decomposition of urea—viz : the salts of ammonia—in large quantity, and that vomiting and diarrhœa are constant events. The analogy between the results of these experiments and the effects of renal disease, involving disorganization, is very striking, and goes to confirm the pathological view which has just been given of the case detailed in this report. Bernard, however, in a late work,* asserts that it is doubtful whether the accumulation of urea in the blood can be considered as constituting it a poison, in view of the fact that this principle may be injected into the veins of a living animal in large quantities, without deleterious effects; and he is disposed to think that the toxical phenomena incident to advanced Bright's disease, are due to the absorption into the blood of decomposed matter belonging to the kidney itself. But Bernard appears to overlook a very essential point of difference between the non-elimination of urea from removal or disorganizing disease of the kidneys, and the introduction of urea into the blood, the renal organs remaining intact. In the latter case the poisonous accumulation of this principle may be prevented by a corresponding activity of the secretory functions of the kidneys: in the former case, the poisonous accumulation takes place because separation by the natural channel is prevented, and the supplementary secretion through the gastric and intestinal fluids is inadequate for the elimination save for a short period. Moreover, the production of urea within the organism vastly exceeds the quantity which can be readily introduced by injection into the veins, and this production is unceasingly going on so long as life continues. There seems no ground, therefore, to doubt that, when the secretion of urine is greatly diminished or suppressed, the toxical consequences are due, at least in great part, to the retention of urea in the blood.

**Leçons sur les Propriétés Physiologiques et les Alterations Pathologiques des Liquides de l'Organisme. Paris;* 1859.

As regards the *modus operandi* of the poisonous action of urea, our knowledge is on a par with that of most poisonous agencies. Whether the urea, beyond a certain amount, becomes a poison *per se*, or by means of other principles derived from its decomposition, is not settled. Professor Frericks has adduced experiments to prove that ammoniacal salts formed from the urea, are alone deleterious, the urea, unchanged, being innocuous. This is not satisfactorily established. The experiments of Bernard and Barreswill appear to show, that the urea, accumulating in the blood in consequence of removal of the kidneys, remains undecomposed, the transformation into ammonia taking place after its vicarious excretion within the stomach and intestines. It appears to be settled, that, if urea remain in the blood sufficiently long in poisonous quantities, and life be not destroyed by its toxical effects on the nervous system, it is apt to give rise to inflammation of some of the serous structures. Peritonitis was developed in some of the animals from whom the kidneys were removed by Bernard and Barreswill. This, however, it may be expected, was due to the local effects of the operation. The occurrence of peritonitis, pleuritis and pericarditis, in cases of advanced Bright's disease, is probably to be explained by the action of the urea, or of the products of its decomposition, on these structures. It would be interesting to determine if serous inflammations may be produced in animals by repeated injections of urea into the veins, following up the ingenious and valuable method of research by which Dr. B. W. Richardson has shown that endocarditis may be artificially induced by the introduction into the system of lactic acid.

In the case now reported, imperfect vision was a symptom during the latter part of life. It has been ascertained by M. Millon, that urea is sometimes held in solution in considerable quantities by the vitreous humor of the eye. The question arises, whether the partial blindness may not have been owing to an accumulation of urea in that liquid. This point might have been settled, had the question occurred when the autopsy was made.

In the case reported, disease of the kidney was associated with rheumatic gout. The patient entered the hospital with the latter affection, and he had been subject to repeated attacks during the preceding eight years. The gouty character of the affection is shown by the age of the patient when first attacked, the tendency to the smaller joints, the local œdema, and the absence of any cardiac complication, notwithstanding so many attacks had been experienced. Yet, inasmuch as no gouty concretions had formed, and the larger joints were affected, as well as the smaller, I have called the affection rheumatic gout. Gout, and certain forms of Bright's disease, are not unfrequently associated; but the nature of the pathological association is not always clear. In the present case, there is ground for the inquiry, whether the gouty attacks may not have been dependent on the accumulation of uric acid in the blood, in consequence of its non-elimination by the kidneys. This principle, like urea, is a physiological constituent, both of the blood and urine, but in much less quantity than urea. The researches of Dr. Garrod appear to show that gout is a toxical effect of an abnormal quantity of uric acid in the blood. In general, this over accumulation is probably due to an undue production of the acid, but it may also occur when the production is not excessive, but the excretion prevented. That the latter explanation is applicable to the present case, may be presumed from the improbability, exclusive of renal disease, of gout attacking a hard-working laborer, living on coarse fare, and probably not entitled to the affection by inheritance.

The absence of dropsy is a feature in the case worthy to be carefully noted. Here was a patient, with the kidneys so completely disorganized that death was attributable directly to uræmia, who had not at any time presented dropsy as a symptom. There was no œdema, except occasionally, in the neighborhood of the joints affected with gout, and no effusion into the serous cavities. The albuminuria, which was excessive, was discovered accidentally. There were no circumstances directing attention to the urine, and had not an examination been made with reference to another object, this symptom, perhaps, would not have been ascertained. Occasional existence of Bright's disease without general dropsy, is sufficiently established, but the latter is, perhaps, much oftener absent than is generally supposed. It is probable that the existence of Bright's disease is often overlooked, because dropsy is generally deemed an almost constant concomitant. This case illustrates the great importance of including an examination of the urine for albumen, among the points of investigation never to be omitted in any serious malady.

The value of microscopical examinations of the urine is also illustrated by this case. For these I was indebted to my distinguished friend and colleague, Prof. Crawcour, who predicted, and, as it proved, justly, an opinion that the patient would speedily die, when he appeared to be convalescing, on the evidence of disease afforded by the microscope, in conjunction with the results of chemical analysis. The presence of fat, and the large waxy casts in the sediment of the urine, showed destruction of the epithelium of the convoluted tubes, and fatty degeneration—the most hopeless form of Bright's disease. The late researches of Dr. George Johnson have rendered the microscopical examination of the urine, in cases of Bright's disease, vastly more important than the tests for the presence of albumen. In fact, the relations which these researches have established between the various kinds of renal casts and the nature and extent of the kidney affection, must be reckoned among the most valuable of the many great additions to our means of diagnosis, with which our art has been enriched within the last quarter of a century. The microscope and the stethoscope are alike instruments which the practical physician cannot afford to dispense with so well as one-half the materia medica.

The treatment in the case which has been reported, claims but a few words. Ammonia was given with reference to the rheumatic affection, for reasons which I will not consider at this time, before the existence of renal disease was ascertained. Knowledge of the fact that urea was imperfectly eliminated, and consequently retained in the blood, would certainly not have suggested this as an appropriate remedy. The discovery of the nature and extent of the renal disease did not lead to therapeutical indications, from which much was to be expected. All that could be hoped for was the prolongation of life, by either increasing the secretory action of the kidneys, or aiding in the vicarious office of the intestinal canal. For these ends, diuretics and hydragogue cathartics were employed to some extent, but without any avail.

HIGHLY INTERESTING CASE OF PENETRATING WOUND OF THE BRAIN.

Reported by G. DEVRON, Resident Student of Medicine, Charity Hospital, New Orleans.

Laurent Fleury, native of France, aged twenty-nine years, blacksmith, entered the Charity Hospital on the morning of the 7th of November, 1859, with three apparently slight wounds, said to have been inflicted by a couple of women, about 1, P. M., that day. The wounds were situated as follows—One on the left occipito-parietal region, one on the face, and one on the left shoulder. They were all dressed with strips of adhesive plaster. As that on the scalp was bleeding profusely, a styptic preparation was used, and it was then dressed. The patient returned home the same evening, but next day he was reädmitted into the hospital, complaining of his throat. Examination showed that in the melee he had evidently been strangled, as his tongue was much swollen, and he felt some pain when speaking. The wounds above described were cleansed and redressed ; a light diet and rest were prescribed, and that day he sat up and took his meals without complaining of any pain. Next morning he remained in bed, but did not complain of pain ; only felt weak. He also stated that he had rested well all night.

At 11, A. M., he complained of headache, and was somewhat sleepy ; and now he gradually lapsed into a state of coma, and died on the 9th, at 8, P. M.

The next day, while assisting Dr. Hart, city physician, in making a post mortem examination, on enlarging the wound of the head, to search for fracture of the skull, I discovered a black substance, resembling iron, on a level with the external plate of bone. I attempted to remove it, but found that great force would be necessary. I then excised a segment of the surrounding scalp, and, on removing a corresponding segment of the bone, found that the foreign substance was the blade of a pocket-knife, which had been driven through and broken off near the handle, and was penetrating the brain to the depth of two inches, at a point nearly corresponding to the junction of the sagittal and lambdoidal sutures. There was no blood effused internally, but some clear liquid. The brain at this point seemed softer than in the opposite lobe.

The piece of skull, containing the knife blade firmly fixed, is now in the hands of the officers of the law, but it will be returned after the trial. It will be deposited in the museum of the New Orleans School of Medicine, to which institution I have presented it.

[The foregoing case is of great interest in more than one point of view. First, to the physiologist, as calling for study of the fact of the presence of such a foreign body penetrating the brain to such a depth, without giving evidence of its presence until some forty-six hours after the infliction of the wound. Second, to the pathologist, as calling for study of the peculiar change in the brain mass which can produce death so soon after the supervention of symptoms. Third, as exhibiting serious consequences of too cursory examination of wounds, and more especially of those in the vicinity of vital organs. Had this wound of the head been properly examined, the fractured extremity of the knife blade would have been at once perceived, the withdrawal of said blade would have been effected, and this man would most probably have recovered. We say most probably, because our periodical medical literature teems with accounts of recovery from extraordinary wounds of the brain. The wound of this man's head seems to have only attracted notice because the hæmorrhage was profuse; a styptic was used to arrest the hæmorrhage, and then the wound was closed with adhesive strips. How much better would it have been to enlarge the wound and apply torsion or the ligature to the bleeding vessel! In doing this, we are sure better surgery would have been resorted to, and the discovery of the true nature of the case would have almost certainly ensued.

We have seen the piece of skull containing the blade, and the latter is as firmly fixed as a nail in a hard oaken plank. We could but wonder that sufficient force and sufficient precision have thus been coincident to produce the destruction of the man; for it certainly required extraordinary coincidence to penetrate a body so thoroughly convex and offering so much resistance.—Eds.]

MIRROR OF WARD 35, CHARITY HOSPITAL,
NEW ORLEANS.

In charge of D. Warren Brickell, M. D., New Orleans School of Medicine.*

Case 1.—*Enlarged Liver—Dropsy.*—J. F., a native of Ireland, aged thirty-four years, widow four and a half years, does general house work, entered the ward Dec. 6th, 1859. She says she has been sick two months with diarrhrœa;

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*On the 24th of December last, we determined to keep a record of the cases occurring in ward 35, now under our control, and furnish a synopsis for the pages of the Gazette. Herewith we furnish an account of five cases, and already we have an accumulation of nineteen more cases, and this, without taking into account several of a trivial nature, and which really have required no treatment at all. So that it becomes an Herculean task for a physician, otherwise busily engaged, to make detailed reports of all cases coming under his care, even in a single ward of the institution. The reader must not look to us, then, for that minuteness of detail which characterizes the reports of our able colleague, Prof. Flint, whose special field this is; but give us credit for directing attention only to the striking phenomena presenting themselves, and the general principles of treatment. As we proceed with our reports we hope to improve, and thus render them more acceptable and more valuable.—B.

has six to ten evacuations in every twenty-four hours, and they are nearly altogether composed of mucus ; has little or no pain at stool, and no blood; is very anæmic, very feeble, and examination of the abdomen shows that the left lobe of the liver is very much enlarged and is quite tender when pressed on. She also has effusion into the peritoneal cavity to a slight degree, but nothing like anasarca. She says she does not drink alcoholic liquors, and refers the painful condition of the liver to several paroxysms of intermittent fever which she had before she became the subject of the present persistent diarrhœa. The conjunctiva is quite yellow. The treatment at first adopted with this patient was opiate enemata, to relieve the urgent diarrhœa, it being, of course, determined to introduce other means in due time. On the second morning, however, it was found that, the diarrhœa being to a great degree checked, the effusion into the peritoneal cavity had greatly increased—the fluid reaching as high as the navel when she assumed the sitting posture. The attention of the class was particularly called to this circumstance, and the proposition was advanced, that the enlargement of the liver was in all probability the primary disease, and the diarrhœa rather an effort on the part of nature to overcome the difficulty consequent on obstruction of the circulation through that organ. Blisters were now applied over the seat of engorgement, and a pint of infusion of cinchona was ordered to be taken every twenty-four hours; also simple but nourishing diet. At once a change for the better was perceived, and at this date (January 8th) the patient is nearly ready to leave the ward. All tenderness over hepatic region is gone, the dropsy no longer exists, jaundice has disappeared, diarrhœa has long ago ceased; and, indeed, convalescence is thoroughly established.

Case 2.—*Results of Intemperance.*—A. O'B., native of Ireland, æt. forty years, widow, does general house work, entered the ward Nov. 9th. Patient is much emaciated; is thoroughly jaundiced, and suffers greatly from irritability of the stomach, rarely retaining a meal, however small, more than half an hour. Even when she does retain food, it is but partially digested, and a persistent fœcal diarrhœa wears her gradually away. Examination of the liver reveals clearly that it is much smaller than it should be, and through the emaciated abdominal walls its surface is found to be hard and rough. Firm pressure on it produces considerable pain. The patient, by her own confession, has been a hard drinker for years; and, to look at her, is to see clearly that she is past the art of man. She is an utter wreck.

Palliative treatment only was adopted; decided doses of extract of conium and morphia being found most efficient to relieve the gastric symptoms. She was allowed the most nourishing diet, too; but she sank rapidly and died.

The diagnosis of 'cirrhosis hepatis' having been made (as part of her trouble, at least,) we were much disappointed at missing the chance of making a post-mortem examination.

Case 3.—*Chronic Diarrhœa—Supervening Pleurisy—Extensive Effusion—Thoracocentesis.*—J. C., native of Ireland, æt. 34 years, married, entered ward December 13th. She is extremely emaciated, and has a rapid fœcal diarrhœa, which has been on her during the whole of the past summer. Has ten or fifteen small passages in twenty-four hours, and passes them in the bed. Her muscles are wasted away, her skin is dry and cool, her pulse exceedingly small, quick, and without force, her tongue red and sleek, her voice husky, her liver very much enlarged; indeed, the prognosis is at once the most unfavorable imaginable. With such a train of symptoms, the patient was put on stimulating plan of treatment, with bland nourishment, and anodyne enemata to control the rapid diarrhœa.

The second or third day after she came in, and when she had reacted a little, a slight cough attracted the attention of one of the pupils, who told me that my colleague, Prof. Flint, had diagnosticated slight effusion into the left pleural cavity. We examined the lung carefully; but the physical phenomena, and the absence of any general symptoms indicative of an acute attack of pleuritis (the patient having only a slight cough, and complaining of no pain whatever), induced us to incline to the belief that the feeble respiratory murmur and dull percussion were rather owing to adhesions which were the result of old pleurisy. Examination of the anterior part of the chest, however, revealed most clearly the existence of emphysema of the superior lobe of the same lung. No feature of this condition of disease was wanting, and the attention of the class was directed to the same day after day. For several days after the question of effusion was raised, there was no apparent increase of the supposed fluid, but suddenly it began to accumulate, and in thirty-six hours the entire left cavity was so filled that all the intercostal spaces were level with the general surface of the chest, and the heart was completely dislocated—its pulsations being distinctly visible through the emaciated thoracic walls entirely on the right side of the median line of the chest. There could now be no doubt of the correctness of Professor Flint's original diagnosis and the error of our own.

While the chest was rapidly filling with fluid, considerable dyspnœa existed, but when the effusion seemed complete all dyspnœa disappeared, and the respiratory act wss conducted with so much ease that no stranger passing the bed would have for a moment imagined the existing state of things. After a few days, however, difficulty of breathing appeared, and with much reluctance the patient submitted to the operation of thoracocentesis, which was skilfully performed by Prof. Flint before the class, on the 4th Jan., and fifty-four ounces of serum were withdrawn. Next morning all dyspnœa had subsided, but all the bad train of symptoms at first detailed were present, (as they had ever been), and the prognosis was, of course, unaltered.

During the ensuing week the patient gradually grew weaker, the diarrhœa being wholly unmanageable, and, at last, oozing of blood from the gums appeared. In the meantime, the chest filled with fluid again, and on the 12th Dr. Flint repeated the operation for its withdrawal, taking away about a tin wash basin full. Only temporary relief ensued, however, and the patient died on the 13th. Other pressing engagements prevented us from making a post mortem, which we very much regret. Dr. Grall received the body in the dissecting room, however, and then all the usual conditions of a pleuritic chest were found, together with enormous fatty enlargement of the liver. We regret very much that the bowels were not closely examined, as we were inclined to believe that the patient had long been the subject of ulceration of the bowels before coming in.

We should not omit to mention that in this case the diagnosis of fluid in the cavity of the chest could be clearly established by the phenomenon of fluctuation elicited in the intercostal spaces. We have always been surprised that particular attention has not been directed to this means of diagnosis in works on the diseases of the chest, as the means of diagnosis of any important affectiou cannot be too freely increased.

CASE 4.—*Hydropneumothorax.*—M. W., native of Hanover, æt. 28 years, in New Orleans four years, single, was admitted to the ward December 22, 1859. On approaching the patient's bedside we found her laboring under intense dyspnœa, so that it was with the greatest difficulty she could answer our questions. She was lying on the right side, her pulse was very quick and feeble, there was lividity of the surface, and general tendency to dropsy. Physical exploration of the chest not only readily revealed an old case of pulmonary tuberculosis, but all the striking phenomena of hydropneumothorax were prominently elicited.

The treatment in this case was, of course, stimulant, but with no idea of effecting any permanent benefit, as the prognosis was clearly of the gravest character.

She lived five days, during which time the members of the class had the fullest opportunity for studying, practically, all the phenomena characterizing her disease. After death Dr. Flint examined the body before the entire class in the amphiteatre, and the diagnosis was thoroughly confirmed.

CASE 5.—*Diffuse Capillary Bronchitis, with Fallacious Signs of Heart Disease.*—C. H., native of Germany, æt. 39 years, married, entered ward December 24th. Saw her first on 25th, at 9, A. M. She had been sick one month, but became rapily worse three or four days before entering. Had an infant of a few months at the breast. Appearance of the woman was most striking. Her face was livid, her lips absolutely purple, countenance indicitive of the greatest distress, dyspnœa extreme. Her skin was cool, the pulse 130, and very feeble (even the carotid arteries pulsating with no force), and general tendency to dropsical effusion. Physical exploration discovered the whole posterior portion of both lungs the seat of intense subcrepitant râle, and the anterior portions already being involved. The closest scrutiny could determine no signs of pneumonia. The prognosis was of the most unfavorable nature, as the patient really seemed to be on the verge of the grave. She was, however, placed on stimulants, with anodynes to induce a little rest, which she had not experienced for many days. Next morning there seemed no change in her general condition, and the subcrepitant râle was now pervading the lungs in every part. Stimulants and nourishing diet were ordered to be urged freely, and next day (December 27th) there was such an amendment of the general sypmtoms (the patient having slept several hours too) as to induce strong hopes of her weathering the storm. The treatment was continued from day to day, the patient gradually improving, until the 3d, when, on visiting the ward, we found her almost in collapse, and everything indicating certain dissolution ; and, on the afternoon of the 4th, she died.

We shall always believe that this patient was lost in consequence of the want of that careful attention at night, which is so indispensable for cases of the kind, and which will, probably, never be afforded in any hospital.

During the course of her disease all the class had the fullest opportunity to study carefully the phenomena of uncomplicated capillary bronchitis in its gravest form, and, by comparison with cases of pneumonia, they could readily establish the differential diagnosis. In the course of these explorations several very intelligent graduates in the class called our attention to the existence of a very distinct valvular murmur at the apex of the heart, and they clearly agreed on the existence of mitral disease. Several years ago we had met with a similar case, and had made a similar diagnosis, which post-mortem observation forced us to abandon. We, therefore, declined to agree with them on the present occasion, and asked a suspension of opinion until the case should end in either death or recovery. A post-mortem was conducted by Dr. Flint in due time; the diagnosis of the pulmonary disease was established, and the heart was found *perfectly healthy.* In subsequent conversation with Prof. F., he suggests that the sound was, probably, to be attributed to the *tricuspid valves,* as he could not otherwise account for regurgitative sound. For our own part, we leave the question *sub judice,* suggesting that herein is a field for future study—viz : the abnormal sounds of the heart under the influence of severe and acute pulmonary disease.

CANCER OF THE TONGUE REMOVED BY THE ECRASEUR.

By Dr. S. Choppin, Visiting Surgeon to Charity Hospital, Prof. of Surgery in N. O. School of Medicine.
(Reported by Gustavus Devron, Resident Student, Charity Hospital.)

George Lobstein, a Frenchman, aged fifty-two years, was admitted in ward No. 9 of the Charity Hospital on the 13th of December, 1859, complaining of lancinating pain in the tongue, and of general debility. Dr. Choppin found the left half of the tongue the seat of ragged ulceration, and giving to the touch an unyielding, inelastic resistance. The patient presented the peculiar color and cachectic appearance indicative of a cancerous diathesis. He stated that the disease commenced by a small tubercle on the left side of the tongue, and that he had now suffered constantly for the last nine months, having had only slight relief some six months ago, after the application of caustics. During the last three months the disease had progressed steadily, and so great had the pain been, that he had not been able to enjoy a single complete night's rest. During the last two months, he has experienced great difficulty in speaking and taking food, and he has lost his weight and strength.

Dr. Choppin pronounced the disease to be an epithelial cancer, and decided upon its removal, selecting the ecraseur as the instrument best calculated to avoid the great hæmorrhage which so often complicates the removal of a portion of the tongue by the knife.

On the 23d of December, 1859, the patient was carried into the amphitheatre and made fast in an arm chair, and placed under the influence of chloroform. His mouth was then kept open by a wooden wedge, and the tongue kept out of his mouth by a Muzeux forceps, while Dr. Choppin introduced the chains of two separate ecraseurs, near the centre of the A shaped row of papillæ circumvallatæ, through the thickness of the tongue, and prepared the instruments, one in the median line, the other across the left half of the tongue. He then gradaully strangulated and divided the included portion of the tongue, by alternately working each instrument so as to cut through both sections at the same time. The operation lasted some fifteen minutes, the patient being kept under the influence of chloroform.

There was no hœmorrhage, but a small portion of the diseased structure not having been included in one of the instruments, the actual cautery was applied to the spot, and to that spot only. The patient was immediately removed to his bed, and a liquid but nutritive and stimulating diet ordered. To the tongue was applied some charpie, moistened with a lotion containing tincture of opium and myrrh, to be renewed three or four times a day.

The patient immediately improved, his appetite returned, the pains disappeared, and in eight days he began to speak and eat with much more facility than before the operation. The wound is healing by granulations, and is now (eighteen days after the operation) almost entirely closed, and only tender when hard substances are masticated. The patient has recovered his strength, and is ready to leave the hospital, but he is prevailed on to remain for observation.

AN ITEM IN THE HISTORY OF QUARANTINE.

Extracted and Translated from Prof. Œsterlin's Zeitschrift für Hygieine Medicinische Statistik und Sanitatspolizei. 1859. By J. F. Grall, M. D., New Orleans.

Tschudi, also, the celebrated naturalist and traveler, came in disagreeable conflict with this relic of the barbarism and superstition of the middle ages, during his last tour to South America, and, we might almost believe, as a punishment for his still believing in the contagiousness of yellow fever and other epidemic diseases. Arriving at Lisbon, where at the time raged a violent epidemic of yellow fever, they hung the yellow quarantine flag on his vessel, because at the time of his leaving Hamburg some cases of cholera were said to exist. But the same board of health permitted some dozen of passengers to embark quietly from the infected port of Lisbon. Arriving at Montevideo, he is again visited by a quarantine physician. This physician hands the boatman a polypus forceps, with which the latter signs the certificate of health handed down by the captain, and presents it to said health officer, who spreads it out on the bottom of the boat, sprinkles a disinfecting powder carefully over it, and then reads it. On account of some yellow fever cases the vessel is suspected, and, because the Lazaretto is crowded, Tschudi has to go into a miserable hole in an old fort ("more fit for dogs and hogs than for human beings"), where he is half devoured by vermin;

and, finally, he has to pay an exhorbitant price for his lodging and miserable food.

Such sanitary measures may be worthy of a sanitary board like that of Montevideo, who discovered in the illuminating gas of the city the cause of a yellow fever epidemic, and therefore gas lamps and gasometers were at once done away with. But are they worthy of our enlightened medicine? We once sanctioned and received the belief of the vulgar in contagion, and thereby put into the hands of every government or board of health a weapon as dangerous as it is useless. This believe in contagion, for the advocacy of which, already a Rush publicly asked pardon, is closely connected with the vascillating and, sometimes, absurd ætiology of diseases. As long as we find the cause of our most violent diseases from an unknown quantity (x), or nothing, so long will there exist quarantines in semi-barbarous countries.

Is it not sad to see, on the strength of such an antiquated superstition, the intercourse, commerce, and the security of every traveler at the mercy of egotistical, and, sometimes, stupid officers and physicians, or at the mercy of the rivalry of intriguing foreign consuls, amongst whom the most powerful and impudent forces his laws upon the rest?

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SPECIAL SELECTONS.

THE MODERN TREATMENT OF STONE IN THE BLADDER, AND ITS RESULTS.

At page 32 of the *Medical Times* for January of the present year, the reader will find a statistical analysis of 186 lithotomy operations performed in the different London hospitals during a period of three years and a half. At page 13 of the Journal for July 2d, is a similar analysis of the cases operated on in certain Provincial hospitals during a nearly similar period, and numbering 177.* The results of lithotrity in London practice were similarly investigated at page 59, January 15th, and those of the same operation in the Provincial institutions at page 35, for July 9th. Lastly, we took under investigation the operations for stone in the female, which, including the London and Provincial institutions together, numbered 23, and which may be found cited with detailed comments in our Journal for July 23d, p. 82.

We now propose to take the whole together, and to institute comparisons, first between the results of London and Provincial practice, and, secondly, between those of lithotomy and lithotrity.

If we could add to our list the cases in which, during the same period, and in the same hospitals, the patients have died of stone without having been operated on, our balance-sheet would be yet more complete. A certain number do so die every year. We should suppose that it is very small, probably not amounting to more than half-a-dozen annually in all the London hospitals taken together. We have recently noticed the fact of several such deaths. They usually occur in patients admitted in the last stages of suffering and debility, who sink within a few days of their admission. In respect to London hospital practice, from long personal experience, we can speak most positively, that it is not the custom to refuse any cases, however bad. If any sort of selection had taken place, the London statistics would appear to far better advantage than they do. Many of the deaths after lithotomy happened to patients whose state was such that any surgeon could have brought himself to regard his own reputation for success as of the first consequence, and his petient's chance of benefit as of the second, would have been most certainly refused. Indeed, in more than one instance which we well remember, the operation scarcely afforded any better prospect to the poor sufferer than that of mitigating his misery during his few remaining days or hours. Against these cases, however, we must put two or three in which recovery ensued under the most unhopeful circumstances, and when the operation had been performed only at the patient's urgent request. These latter have been sufficiently numerous to most fully justify the rule adopted by metropolitan surgeons, of always operating, however ill the patient may be, provided there appears to be no hope of improving his general health by preparatory treatment. Whether or not this rule is carried out to the same extent in our Provincial hospitals, we do not know. If it is not, the difference in result between the London and Provincial institutions is to a certain extent accounted for.

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*Since that report was published, we have discovered that the cases operated on during 1856 were accidentally omitted. They will, of course, be now included. It is a remarkable and interesting fact, as showing that our calculations do very closely approximate the actual truth, that the addition of this year's cases, 45 in number, does not make any appreciable alteration in the proportionate numbers as regards age, recovery, etc., etc.

General Results (*both Sexes*).—The total number of stone cases coming under surgical treatment during the periods referred to, including females, appears to have been 467. Of these, 386 were cured, 3 were discharged unrelieved (after lithotrity), and 78 died. In 408 instances, lithotomy was performed (all ages, but chiefly children), with 341 recoveries, and 67 deaths. Lithotrity was performed in 37 instances (all but one adults), with 23 recoveries, 2 subsequent lithotomy cases, 3 discharged unrelieved, and 9 deaths.

The cases of stone in the female were 24; and of these, 22 recovered, and 2 died. The aggregate fatality of operations for stone would thus appear to be 1 in 6 in males, and 1 in 12 in females.

Throughout the remainder of our report, we shall exclude the 24 cases of stone in females, and deal only with the 443 cases occurring in males.

Comparison between London and Provincial Practice—(Males Only.)—The relative proportion of cases treated by lithotomy and lithotrity respectively appears to be about the same in our London and Provincial institutions. The same rules of selection appear also, with some exceptions, to prevail in both, as well as in individual hospitals. Lithotrity is, as a rule, never performed in children; and the circumstance of the patient being in unusually bad health is regarded as a reason for preferring lithotomy. In one or two instances, however, the reports supplied to us state that the stone was crushed because the man was thought too ill to bear the larger operation; but these are very exceptional. The selection of the one or other operation for adults in good health appears, however, to have been very arbitrary, and has, we believe, in many instances, been decided by the patient's own preference. It does not appear, judging from the data before us, and from what we know privately, that any of our hospital surgeons make it an invariable rule of practice to employ the lithotrite in all cases of stone in adults of fair general and local health.

The appended statement gives the aggregate results of the two modes of operating:

METROPOLITAN.

Whole number, 207;	recovered, 157;	died, 47;	1 death in	4.4.
Lithotomy, 186;	" 146;	" 40;	"	4.65.
Lithotrity, 21;	" 11;	" 7;	"	3.

PROVINCIAL.

Whole number, 238 ;	recovered, 207 ;	died, 29 ;	1 death in 8
Lithotomy, 222 ;	" 195 ;	" 27 ;	" 8.22.
Lithotrity, 16 ;	" 12 ;	" 2 ;	" 8.

In the first of the accompanying tables the same cases are classified according to the ages of the patients, both lithotomies and lithotrites being taken together.

Thus, then, we have the fact brought clearly out, that of every four cases of stone in males (all ages) submitted to surgical treatment in the London hospitals, one ends fatally, while in the provincial institutions the fatality is only one in eight. Before attempting to ascertain the probable causes of this startling difference, two questions present themselves for answer. In the first place, are the two series of cases sufficiently alike to be properly made the subjects of comparison? And, in the second place, are the data of which they consist equally trustworthy in both? The first of these we would answer without hesitation in the affirmative; the two series of cases do bear a very close similarity to each other, *i. e.*, in each the relative proportions of patients at different ages closely correspond, while nearly the same rules appear to have influenced the minds of the different operators as to the performance of lithotomy or lithotrity. In the latter point, indeed, the advantage is rather on the side of the metropolitan series, since it includes a larger proportion of lithotrity cases, which, as we shall hereafter see, is the less fatal operation in the adult. In replying, or attempting to do so, to the second question, we tread on different, and very delicate ground. It must, we think, be granted that the accuracy of the two series is not equally well guaranteed. Both in London and in provincial hospitals, our statistical reports have been, in the first instance, compiled from data supplied to us by the resident medical officers of the respective institutions. Thus far, therefore, the modes of procedure, and the probability that all cases would be recorded, are the same in each. In London, however, the writer of this report was himself engaged in daily attendance on the practice of the different hospitals, and was in the frequent habit of looking through the "Operation Books" himself. Without making the slightest reflection on the integrity of those to whose zeal we are indebted for the provincial data, the simple statement that the additional security of completeness just mentioned, was in the case of their institutions not brought to bear, will be sufficient to prove that the facts in the two series are worthy of different degrees of reliance. We may venture to strengthen the proof by stating that in certain instances cases did find their way into our London list of deaths, through our own personal supervision, which would not otherwise have done so. We shall here leave this matter, and our readers must form their own conclusions as to the allowance which ought to be made on the ground referred to.

Whatever allowance individual readers may incline to make on the score above mentioned, none can entertain a doubt that our statistics really prove that a great difference in result does obtain in our provincial and our metropolitan hospitals. The apparent difference is so great, that it is impossible but that a considerable part of it must be real. It will be seen also that it is almost equal, whether we examine the lithotrity series or the lithotomy one. To what, then, are we to attribute it? We may fairly presume that the amount of surgical skill to be met with in the two series of hospitals is equal, and we believe that the same rules of practice prevail in each—*i. e.*, the ordinary lateral operation was performed in almost all the cases. We have already observed that the ages of the patients very closely correspond. Two circumstances remain for consideration, as possible causes of the difference. 1st. The provincial hospitals may possess great sanitary advantages over our London ones. 2nd. The class of patients admitted under provincial surgeons may possess far better constitutions as regards ability to bear severe operations, than do those who enter our London hospitals. Probably both these suppositions are true to a certain extent; but the latter has, we suspect, vastly the wider range of influence. Let us glance at the following facts: Out of 109 children under the age of ten lithotomised in the London hospitals only 8 died, and exactly the same number was lost of 113 patients of the same age operated on in the provincial ones. Here the London fatality is 1 in 13.5, and the provincial 1 in 14; in fact the results scarcely differ, while the whole number is quite sufficient to supply data for fair comparison. Now, if the sanitary advantages of the two series of hospitals were very different, ought not the effect to be at least equally apparent in the case of young children as it is in that of adults? As we leave the age of infancy, the difference, however, becomes marked, and it increases almost steadily with each decade. Between 10 and 25 the London fatality is 1 in 5, and the provincial 1 in 9. Between 25 and 45, the London deaths are exactly in twice the proportion of the provincial ones. Between 45 and 60 the difference is much greater, London losing one-half, and the provinces only 1 in 5. In the oldest class of patients—that is, those between 60 and 80—the metropolitan mortality reaches its alarming maximum of three-fourths of the whole number, whilst in provincial institutions it is only one-third. Do not these facts prove to a demonstration, that there is a very great difference in the power of recovery after lithotomy between our London and provincial patients? The adult subjects of lithotomy in London are of two classes—those who have resided in the metropolis, and those who have been sent up from the country expressly for the purpose of operation. Probably the former of these two classes would include two-thirds, and the latter one-third of the whole, but in this matter we have no ascertained data to guide our conjecture. We need not here enlarge on the bad state of constitutional stamina in London adults of the poorer class, since it is sufficiently known. Intemperance, irregularities of all kinds, and city life do their work, and their effects usually become increasingly apparent as age advances. On the second class—that comprising cases sent up for operation from the country—we will venture one or two remarks. As a rule we do not believe that our provincial *confrères* select their best cases to send to our London hospitals. At any rate, of this we are sure, that some of the very worst in the whole series were patients who had been so sent up for operation. Not unfrequently there is a history that lithotrity has been repeatedly tried, but that the bladder becoming more and more irritable, and the patient's health failing, the case has been sent up to town for further measures. Then, again, even supposing that our patients from the country were of average health, it is easy to see that their transference to the wards of a London hospital, is likely to exert anything but a favorable influence. To a naturalized Londoner a London hospital is a sort of palace, but its effects are very different upon a farm laborer who has been accustomed to the air of the Kent downs.

Comparison between Lithotomy and Lithotrity.—The reader will find on another page a concise tabular statement of the results of lithotrity, both London and provincial. The whole number of cases is but small.

The table in question shows that out of a gross total of 35 cases treated by lithotrity, in which the patients were between the ages of 20 and 75, twenty-two resulted in recovery, four were unrelieved, and only nine ended in death. Granted that the rate of mortality is large, and far from satisfactory, it still contrasts favorably with that of lithotomy in patients between the same limits as to age. The gross fatality of lithotomy in adults, taking London and provincial cases together, is rather more than one in three, while that of lithotrity is one in four only.

Taking the London cases by themselves, we find that between the ages above mentioned, rather more than half (26 out of 49) die after lithotomy, while only a third (7 out of 21) die after lithotrity. It must be remembered, however, that three cases treated by lithotrity remained unrelieved, and while in more than one instance the same patient was treated for a relapse of symptoms a year or two afterwards, his case is counted twice.

Taking the provincial cases by themselves, we find that between the ages mentioned, not quite one-fourth die after lithotomy (18 in 74), while the lithotrity mortality rate is only one in seven and a-half (2 in 15). Two of the lithotrity patients, were, however, after long treatment, finally submitted to lithotomy, and the remark made above as to the unavoidable multiplication of cases by counting the same twice, applies, we believe, with equal force to the provincial as to the London series.

Allowing then, that to a certain extent the best cases are selected for lithotrity, we cannot say that the results obtained are very triumphantly in favor of that operation. Still the balance of evidence, especially in patients past middle life, is certainly, and beyond dispute, to its advantage.—*Medical Times and Gazette*, and *Virginia Journal.*

EDITORIAL AND MISCELLANEOUS.

THE END OF VOLUME VI.

This number completes volume VI. of the *New Orleans Medical News and Hospital Gazette.* That we have fulfilled the measure of our duty to our subscribers, and given them the worth of their money, we feel assured. Alas! how many have received all our labor for positively nothing. Year after year, aye, month, after month during a succession of years, they receive the fruits of our hard labor, and seem never to dream of paying for it. With the progress of each year we labor on, indulging the earnest hope that we shall receive money enough to pay the printer and increase the value of our ensuing volume, and then the year ends with thousands due us, and all our hopes blasted. Never, since we became an editor, have we entertained the desire to put money into our pockets from this channel. No, our ambition has been to spend every cent on the journal itself, and make it what it should be to a paying list of subscribers. But, until we can arouse hundreds to appreciate the fact that they are yearly defrauding us and our paying friends, we must cease to hope. This very day there are more than five thousand dollars due our journal; and look at our monthly list of receipts! This very day we have one hundred subscribers who owe us twenty dollars and upwards, and many of these men we *know* to be doing an annual practice of more than $3,000. We appeal to them, and they treat our appeal with contempt. Aye, worse than this—week after week we receive notices from postmasters saying that these debtors now refuse to take the journal from the office. They have not the hardihood to write us that they repudiate, and they do it over the shoulders of the postmaster. Will these gentlemen force us to publish a list of their names? They must have medical journals, and no doubt only quit us to go and do likewise to some other poor wight of an editor. If any other southern journal will send us a list of their delinquents, we will furnish an *exchange* list of equal extent. There at last seems to be no other remedy.

Once more we appeal to all who owe us, whether it be $5 or $25, to settle their just debts. Do this, and we will furnish a seventh volume more than worth the money. *We* do not want the money. We will send it all back to you in the pages of the *Gazette*. Is it possible that we are to be disappointed?

ANNUAL REPORT OF THE BOARD OF HEALTH TO THE LEGISLATURE OF LOUISANA, JANUARY, 1860.—Through the kindness of a friend, we are in possession of this interesting pamphlet of twenty-eight pages. The first twenty pages are occupied by the report of the President, Dr. A. F. Axson; the next two pages are devoted to the financial report of the Secretary, Dr. H. D. Baldwin, and the Finance Committee; and the remaining six to the general mortuary report for the city of New Orleans.

The report of the President opens with a rejoicing over the compliance of the Federal Government with its obligations, in constructing warehouses and wharves at the Quarantine Station. The President says: "With the acquisition of these advantages, it will now be possible to give practicable efficiency to the quarantine regulations, which was wholly unattainable before, in consequence of the want of these very facilities." We like that word "possible," for comparatively few things are impossible, while the array of improbabilities is startling indeed; and prominently among these same improbabilities stands that very one of "practical efficiency to the quarantine regulations" of Louisiana.

The President says that, "the board is firmly of opinion that if it continue to be the policy of the State to guard (to *try* to guard?) the health and lives of its citizens against the ravages of imported disorders, it will be necessary, with a view to this end, that, as fully as they can be made, to conform with the commercial ends and prosperity of the city, the quarantine regulations should be rigorous and precise; designed rather to exclude for certain periods of time all intercourse with infected places, than to define the conditions under which such may be admissible." We are as much pleased with this recommendation as with that word "possible," for it leaves us free to know that "the commercial ends and prosperity of the city" will always prevent our Legislature from passing laws sufficiently "rigorous and precise," and, at the same time, confirms us in the belief that, however "rigorous and precise" the laws may be, "the commercial ends and prosperity of the city" will always prevent the faithful execution of those laws. "Rigorous and precise" laws in relation to our quarantine will always be about as powerful for good, as are our existing statutes in relation to duelling and other matters. The laws are well enough, but the execution is a farce. Nor do we mean to impugn the desire of the officer to execute the law. The idea is, that even if his desire be as fervent as it could be for a future blissful existence, he never can execute the law thoroughly, and unless it is thoroughly executed, all mere attempts result only in injury to the community.

But the President says: "The Board, without any division of sentiment, is prepared to leave the question to the hands of the Legislature (of course they are). It will strive by no unfair representation of facts to perpetuate an institution that has no intrinsic virtues to commend it; nor will it suppress any calculated to show inherent defects in existing law. It will aim to be impartial and just, believing that public interests should far outweigh every consideration of individual gain or benefit." Well done, thou good and faithful servant! Amen! Only let an intelligent people have the undistorted facts concerning quarantine, and the appearance of epidemic disease before them, and our faith is strong that the institution will be abolished.

Then follows two or three historical pages, in which the President paints the terrors of the years 1847, '48, when ship fever filled our hospitals and cholera the broad land; the happy years, 1850, '51, '52, in which a truce with disease was declared, and property ceased to "rock to and fro;" and the terrible year of 1853, when yellow fever spread its black pall over our people. Then comes the announcement of the establishment of quarantine to insure thenceforth the immunity of our city from those terrible "imported disorders," together with a requirement "of the city government to act in concert with the Board of Health in devising such sanitary regulations as experience has proved competent to the end." Then the significant remark: "If the whole plan has failed to fulfill its promised blessings, it cannot be imputed to any inherent defect in the principle of the law." But why the "if"? The whole plan *has* failed, and let it be faithfully recorded as a failure. Let it be distinctly recorded that New Orleans has so many points of approach, and her commercial pursuits are so varied, and her people so eminently selfish in their individual pursuits, that rigid, proper quarantine is not to be expected; and let it be recorded that the city government of New Orleans is eminently political, and that our "fathers" have no care for us beyond the influence of our vote. And in the face of these rude facts, shall our legislature be called on to make more "rigorous and precise" laws and requirements? Frail indeed is the hope which rests on the rigorousness of a law for its observance. On the contrary, the disposition of a people to obey mild and important laws must be manifest before we can believe in the efficiency of those which are "rigorous and precise."

In recording the failure of the city council to coöperate with the Board of Health, the President says:

"Its (the Board's) labors then and subsequently have been unavailing to inspire our city fathers with a sense of their importance [the fathers will take this 'importance' to themselves—Ed.], and the utter destitution of the city in every essential of sanitary regulation necessary to health, or even to decency and self-respect."

Pretty strong language, and appropriate; yet calculated to have as little effect on political eyes and ears as a morning mist or a schoolboy's pop-gun. New Orleans is the filthiest hole in the land, except New York city (which, in point of filth, it can never hope to rival), but there is no use in talking about it. Our city fathers wade through the filth to reach their seats in the hall, and they thus become accustomed to it.

The President next calls attention to the defective manner of taking the census of our city, and urges again the establishment of a registration law. We have an abiding conviction that all this will be properly arranged—in the next century.

Attention is also called to the increase of mortality during the past year over that of the two non-epidemic years, 1856 '57 (to which we will refer directly), and the diseases furnishing this excess are said to be consumption, diarrhœa, dysentery, and diphtheria. Also to the large mortality by "personal collision," the result of passion, revenge, and deliberate ruffianism.

He points to the mortality by yellow fever in 1859 (92), and says:

"As far as any evidence to the contrary is known, *it was incontestibly of domestic origin* [we italicise]—the product of soil, season, and susceptible subjects existing concurrently together."

A frank acknowledgment, yet one we would have expected from an official as conscientious as the President is known to be. And a nut for quarantinists to crack. Will they crack it carefully and preserve all the meat contained?

From the Secretary's report we see that the total amount of quarantine fees collected at the three stations—Mississippi, Rigoletts, and Atchafalaya—is $33,271. Of this, under law passed by last legislature, the Charity Hospital gets $5,000. The salaries of officers amounts to $12,411 14. We should like very much to see even the petty sum of $35,000 per annum properly spent for sanitary purposes in our city. Some good might be expected.

From the valuable and well arranged mortuary tables, we hear that 6,847 deaths occurred in the city during the year 1859, or about 18½ per diem. In January there were 504 deaths; in February, 472; in March, 438; in April, 479; in May, 621; in June, 525; in July, 701; in August, 503; in September, 656; in October, 611; in November, 788; in December, 549. January, February, and March, were the healthiest months of the year—eminently so, when we consider that at that time our population is far greater than at any other time. The average monthly mortality was about 570. With no actual data in relation to our population, we cannot say what the rate of mortality has been.

Cholera infantum killed 88 in 1859; in 1858, 108. Consumption, 869 in 1859; in 1858, 729. Infantile convulsions, 367 in 1859; in 1858, 521. Diphtheria, in 1859, 253, children chiefly, between two and ten years of age; no data for 1858. Yellow fever, 92 in 1859; in 1858, 4,845. In 1859 there were 353 still-born children, against 338 in 1858—a state of affairs which should arouse the attention even of politicians, for we suppose their households must suffer with others.

Attached to the report is a very elaborate meteorological register for the year, which must have cost its author much time and labor. We cannot see why his name is suppressed, as the production is certainly an honor to him, if the record is faithful.

Altogether, the report is a very able and interesting one, though, as the Secretary admits, defective. A strange feature in the business is, that our legislature seems to regard New Orleans as Louisiana, in a mortuary point of view, and instead of our having an annual report of the condition of the state, all efforts are centered on this one little corner. Is a real common sense view of matters of such importance only to be developed in the next century?

AN OBSTETRIC LETTER.—*Editors of the Medical News and Hospital Gazette*—Gentlemen: This being a very cold day, compelling me to hover over the genial warmth of a cheerful and blazing wood fire, it struck me that I might pass my time very pleasantly and profitably by reviewing some numbers of your journal, that in the pressure of professional business I had passed over very lightly.

In your January number of 1858, my particular attention was fastened upon an article headed, "Prolapsus of the Uterus and Bladder," from the *London Lancet*, giving the result of some cases relieved by operative measures performed by "Mr. Ferguson at King's College Hospital, for their relief and radical cure." It is a very common thing, very surprising to a professional man of experience at the north, to meet with cases so frequently of procidentia of the most aggravated character and long standing on most of our southern plantations. I have often seen field hands where the uterus protruded nearly as large as a "cocoanut," and very strange to say, with very little inconvenience, although their history revealed years of suffering before that organ became covered with integuments and scarf skin resembling that on any other external part of the body.

And now let me inquire, why the great number of such cases at the south, and so few at the north, amongst our laboring population? Is it the relaxation produced by a southern climate, or the ignorance and obtrusive interference of our plantation accoucheurs and "nigger midwives"? I answer very emphatically, the latter. At the north it is considered almost a disgrace for the lowest American laborer to trust the life of his wife in such a case to an ignorant midwife. He endeavors to procure the most experienced, scientific, and popular accoucheur within his reach, cost what it may.

At the south, almost every plantation has its midwife for its laborers, who does not know any more of anatomy and obstetrics than of *law* and *theology*—and when they get a case, instead of *assisting* nature, they attempt to usurp her place by positive violence; and the consequence is, that when the child is *hauled* forth, the organs are so overcome and forced along with it, that almost irremediable prolapsus is the consequence.

Now, Mr. Editor, which is the best remedy, to attempt to correct public practice on our plantations, by showing proprietors that it is not only humanity, but *economy*, to patronize our scientific young men in obstetrics, as in all other parts of their profession; or adopt Mr. Ferguson's operation for their relief, with an *appropriate* compensation? France for science, England for practice, America for economy. Now, what shall Louisiana do?

Respectfully,
M. Marsh, M. D.

Port Hudson, La., Dec. 7, 1859.

[The question raised by our esteemed correspondent is one of the most important nature, both to the physician and slave owner; and under existing circumstances we see but one remedy. There is no doubt at all that our own ignorance of midwifery was originally highly influential in throwing the practice into the hands of old "midwives," and it certainly behooves every young physician to so thoroughly prepare himself for useful obstetric practice as, by skillfully rendering assistance to suffering women, to command the patronage of the planter. Real merit will surely be acknowledged (the rule having its exceptions, of course), and the first step towards accomplishing the desired revolution is to possess that merit. Our own experience, both in country and city practice, is that the old midwives comparatively rarely resort to manipulation in the cases they are called to, and that the greatest of the evils occurring to their cases are either the result of drugging (ergot being the favorite article), or, more commonly, quietly sitting by the patient and allowing nature either to inflict direct injury on herself, or absolutely to wear herself out in vain efforts to accomplish impossibilities.

Had we the time, or were this the place, we could even show that our text books and lecture rooms afford the pupil of the present day authority for this same indirect abuse of nature. Let us, then, strike at the root of the crying evil, and first teach our young doctors when to act, how to act, and then *to act*. Let the people see that cases attended by doctors from the beginning never become the subjects of vesico-vaginal fistulæ, or any other dire chronic disease, and then we may hope that the old lying-in maxim, "The midwife calls the doctor, he uses instruments, and then death walks in," will pass away. As long as we ourselves abuse both nature and the efficient means of assistance at our command, we must occupy the subordinate position alluded to by our correspondent.—Ed.]

RADICAL CURE OF HERNIA.—We were present yesterday (January 20th), at a very interesting and instructive lecture delivered at the amphitheatre of the Charity Hospital, by Dr. Samuel Choppin, Professor of Surgery in the New Orleans School of Medicine, on the subject of Wützer's operation for the radical cure of hernia. The amphiteatre was crowded with pupils and graduates from city and country, the pupils of the two schools mingling in the most friendly manner, and the lecture was received most cordially.

Dr. C. first pointed out the great importance of the subject of hernia, and, for the reasons that it is of so frequent occurrence, and has proved so unmanageable, the absolute necessity for innovations in the treatment. He fully explained to the class the principles of the operation proposed by Wützer, with the mode of proper performance of the same, the various modifications of the original instrument, the causes to which failures are to be attributed, etc., etc. Then he called attention to the objections urged against the operation (and these are urged most strenuously and industriously by those who have never performed it, or even seen it performed, and who will not even condescend to see others operate, or look at the cases they have cured), viz: the danger of peritoneal inflammation and the liability to relapse; and showed conclusively, by the most reliable and extensive statistical data, that not a single death (if even peritoneal inflamation) has ever occurred from the operation, and that relapses are the rare exceptions to an established rule. Moreover, for the benefit of those who *argue* against the operation with ridicule, he adduced the reliable testimony of foreign and domestic surgeons to the effect that post-mortem examinations of subjects operated on years, or even months before, revealed positive occlusion of the canal, thereby rendering the recurrence of the hernia impossible.

Then, to strengthen the position taken in favor of this important operation, Dr. C. introduced to the class six or seven cases which had been operated on by himself, in the past two months, at various times, and demonstrated the fact of occlusion of the canal. There were medical gentlemen around the table who were desirous of learning the truth in relation to the operation (amongst whom was a distinguished gentleman from Philadelphia), and, by no means strange to say, all readily concluded that it is a most valuable one.

Finally, Dr. C. introduced a new case of inguinal hernia, a stout man of 52 years, and satisfactorily demonstrated the facility with which the operation can be performed by those who will take the trouble to make themselves acquainted with the principles involved. Chloroform was administered to the patient, not for the purpose of avoiding the pain (for the operation is almost painless), but to produce relaxation of the abdominal muscles, and thus overcome all resistance to the finger and the instrument which accompanies it.

We have several times before called attention to this most valuable operation, and offer no apology for repeating our opinion, that it is one of the most important surgical innovations of the age—if not absolutely the most important. It is doplorable indeed to see purely theoretical objections urged against it by those whose positions absolutely makes it a duty on their part to practically test it before giving expression to a single word of condemnation. And yet this spirit seems a part and parcel of the history of every medical epoch. In every generation, youth and old age are in the medical harness together, and while the former is ever for pressing onward, the latter stubbornly holds back. Two potent causes are ever at work to retard the progress of medicine, the one having its roots in the vanity of man, and inducing the so-called "man of experience" to imagine himself possessed of all the knowledge in the world; the other flourishing in the hot-bed of jealousy of the successful efforts of ambitious and industrious colaborers. Here is the miasm which penetrates the life-blood of our science and keeps it sickly; under this poisonous influence, it totters along the road of progress, when really its steps should be as firm as those of the fabled giant.

The fact that the radical cure of hernia can be nearly always accomplished by the method under consideration is no longer to be disputed, and he who sneers at it is only furnishing a stick with which to have his own head broken. Young Medicine has brought it forward and established it here. In 1848 Young Medicine introduced chloroform here and established it; but four years ago Young Medicine introduced and established Sims's operation for vesico-vaginal fistula; and it is but a short time since Young Medicine introduced and established the ecraseur. And thus, and thus only is Young Medicine aggressive in his policy. He sees room for improvement in medicine, and his whole energy is bent to effect the change. He is not for knocking down the old edifice, but acknowledging the foundation to be well laid, and the superstructure well planned, he is only for perfecting it, and making it really enduring by the substitution of good material for defective. He is for an eternal warfare of improvement, and whenever he is found holding the place of a commissioned officer, promotion is his motto. He cannot live and die an orderly sergeant; he must be general-in-chief. Who that has the welfare of his fellow man at heart, would try to crush out such a spirit as this?

Southern Students Leaving the Medical Schools of Philadelphia.—We have learned through the newspapers that over three hundred medical students from the southern States, recently left Philadelphia in a body for Richmond, and other southern cities.

If this movement is to be regarded as the result of political causes, it is to be regretted. If, on the contrary, it was the result of a returning sense of the mistake the young gentlemen committed in passing by the schools of their own States, especially for those of Pennsylvania, we cannot but commend their good judgment.

The medical schools of the southern cities suffer nothing in comparison with any in this or foreign countries.

Their professors are learned and eloquent; the facilities for clinical teaching are, in some of the large cities, ample. Why, then, should they not be supported by southern students.

We do not in any way intend to disparage the advantages of Philadelphia as a seat of medical learning. Her character is too well established to require endorsement or fear depreciation; but we have long believed that a more equal distribution of students among such medical schools of the country as possess facilities for clinical instruction instead of gathering five hundred on the seats of a single lecture-room, would be for the advantage of all concerned, and we hope that hereafter the medical students of the west will not be behind those of the south in their attachment to the institutions of their own particular sections—institutions which, if they are not already fully equal to any others, only require the patronage to which they are legitimately entitled to render them so.—*Chicago Med. Journal.*

[Such are the sentiments which pervade the faculty of the school we in part represent, and such only. And such are the sentiments we claim a right to cherish and to urge. The taunt of sectionalism can never force us from the position we have taken, and which is impregnable—viz: that the South affords every facility for the prosecution of the study of medicine that can possibly be offered by the North. Nay, more; without entertaining the slightest desire to injure by comparison, we reässert that the city of New Orleans at this moment affords advantages for the student, whether graduate or undergraduate, not equalled in the land; and on this ground we claim that New Orleans shall be at least the medical centre of the South. Despite the canting to the contrary, it is the absolute duty of our young men not to turn their backs on home and its superior advantages. We have succeeded in establishing the New Orleans School of Medicine by laboring to develope the rich resources of our city, and on this high platform do we plant ourselves, resolved never to stain our escutchen by descending to political or other intriguery. We deserve the patronage of our youth, and we know they will shower it on us.—Eds.]

Wutzer's Operation in Charleston.—In the January, 1860, number of the Charleston *Medical Journal and Review*, Dr. T. L. Ozier, of that city, reports twelve successful operations by the method of Wützer, and says he has operated on nineteen others, all of which he deems successful, though they are too recent to report as cured. The Doctor views but one class of cases as incurable, viz: those in whom the hernia has *long* remained in the scrotum, without the support of a truss, thus greatly enlarging the canal and bringing the inner ring opposite the outer. He has some (as we think) erroneous ideas of the principle on which the cure is effected; but this matter is in better hands than ours, and will be elaborated in the pages of the *Gazette*. We call attention to Dr. O.'s report to show that the ball is in motion, and that hernia is curable and will be cured.

An Error.—Dr. O. C. Gibbs, in the late number of the New York *Medical Monthly*, quotes from our colleague, Dr. Fenner's, Minnesota experience last summer. Dr. F. went to Europe, and we had the pleasure of that trip to Minnesota.

Classes of the New Orleans School of Medicine.—The first class of this institution numbered 76; the second, 126; the third, 164; and the present, or fourth, 210. This is progress unmistakable, and clearly indicative of her future prosperity.

BOOKS AND PAMPHLETS RECEIVED.

"*The Diagnosis, Pathology, and Treatment of the Diseases of the Chest.* By W. W. Gerhard, M. D., one of the Physicians to the Pennsylvania Hospital, etc., etc., etc Fourth edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co. 1860."

As a former pupil of the distinguished author of the foregoing work, we cannot express other than pleasurable feelings on looking at this substantial evidence of the high estimation in which he is held by the profession. Since 1846 this valuable standard work has passed to a fourth edition, and now comes to us enlarged and improved so as to bring it "fully up to the times." As we have heretofore done, we cheerfully commend it to our brethren as a truly reliable treatise on the chest, for we know that it comes from the hands of a "good physician." It is the fruit of patient and honest investigation.

"*Elements of Medical Jurisprudence.* By Theodore Romeyne Beck, M. D, LL. D, Prof., etc., etc., and John B Beck, M. D, Prof., etc., etc. Eleventh edition; with notes by an association of the friends of Drs. Beck. The whole revised by C. R. Gilman, M. D., Prof, etc. Philadelphia: J. B. Lippincott & Co. 1860."

This standard work comes to us in two large volumes of 900 pages each, and, so far as we can judge by a pretty free inquiry, it seems to be really a complete treatise. The previous editions have commanded the liberal support of the profession, and the present is certainly far more reliable, inasmuch as it not only has the fruits of the additional labors of its authors, but has been freely contributed to by such men as Austin Flint, M. D., R. H. Coolidge, M. D., D. Tilden Brown, M. D., R. W. McCready, M. D., Samuel St. John, M. D., John Watson, M. D., J. P. White, M. D., John C. Dalton, Jr., M. D., George Shea, Esq., and the Hon. Murray Hoffman, of the New York Superior Court.

"*The Obstetric Catechism; containing two thousand three hundred and forty-seven questions and answers on Obstetrics proper.* By JOSEPH WARRINGTON, M. D. One hundred and fifty illustrations. Philadelphia: J. B. Lippincott & Co. 1860."

We are the inflexible opponents of all abridgments of medical text books, and never commend them to our pupils. This is one of the best of its kind, however, and has met with great favor.

For all the foregoing books we are indebted to the worthy publishers through our enterprising friends, J. C. Morgan & Co., booksellers, at the post office. The works are finished in the best style of the art, and have been promptly laid on our table.

REPORT OF DEATHS IN THE CITY OF NEW ORLEANS FOR NINE WEEKS, ENDING JANUARY 22, 1860.—*From 20th to 27th November*, 1859.—Men, 64; women, 30; boys, 42; girls, 29; adults, 94; children, 71; males, 106; Females, 59. Total 165.

Principal Diseases.—Consumption, 22; congestion of brain, 7; dyspepsia, 6; enteritis, 10; inflammation of lungs, 7; teething, 9; still-born, 9.

From 27th November to 4th December.—Men, 49; women, 19; boys, 24; girls, 37; adults, 64; children, 61; males, 72; females, 53. Total, 125.

Principal Diseases.—Consumption, 15; congestion of brain, 5; chronic dysentery, 12; dyspepsia, 5; trismus nascentium, 7; still-born, 10.

From 4th to 11th December.—Men, 55; women, 16; boys, 34; girls, 18; adults, 71; children, 52; males, 89; females, 34. Total, 123.

Principal Diseases.—Consumption, 5; infantile convulsions, 11; chronic diarrhœa, 8; typhoid fever, 7; inflammation of lungs, 6; still-born, 6.

From 11th to 18th December.—Men, 56; women, 25; boys, 42; girls, 25; adults, 81; children, 67; males, 98; females, 50. Total, 148.

Principal Diseases.—Consumption, 22; infantile convulsions, 19; chronic diarrhœa, 9; chronic dysentery, 8; inflammation of lungs, 9; infantile marasmus, 6; trismus nascentium, 7; still-born, 7.

From 18th to 25th December.—Men, 64; women, 25; boys, 26; girls, 23; adults, 89; children, 49; males, 90; females, 48. Total, 138.

Principal Diseases.—Consumption, 17; infantile debility, 6; chronic diarrhæa, 7; dropsy 5; inflammation of lungs, 7; teething, 6; still-born, 7.

From 25th December to January 1st, 1860.—Men, 57; women, 25; boys, 37; girls, 21; adults, 82; children, 58; males, 92; females, 48. Total, 140.

Principal Diseases.—Consumption, 12; infantile convulsions, 6; chronic diarrhœa, 6; chronic dysentery, 7; typhoid fever, 6; inflammation of lungs, 20; trismus nascentium, 5; still-born, 7.

From 1st to 8th January.—Men, 74; women, 24; boys, 24; girls, 29; adults, 98; children, 53; males, 98; females, 53. Total, 151.

Principal Diseases.—Bronchitis, 6; burned, 9; consumption, 21; infantle convulsions, 5; chronic diarrhœa, 7; inflammation of lungs, 11; still-born, 5.

From 8th to 15th January.—Men, 58; women, 16; boys, 31; girls, 26; adults, 74; children, 57; males, 89; females, 42. Total, 131.

Principal Diseases.—Consumption, 19; infantile convulsions, 8; chronic dirrhœa, 12; diphtheria, 6; inflammation of lungs, 10; still-born, 5.

From 15th to 22d January.—Men, 57; women, 29; boys, 35; girls, 25; adults, 86; children, 60; males, 89; females, 57. Total, 146.

Principal Diseases.—Consumption, 25; infantile convulsions, 5; infantile debility, 5; delirium tremens, 8; chronic diarrhœa, 6; inflammation of lungs, 16; still-born, 5.

LIST OF PAYMENTS TO JAN. 25TH, 1860.—Drs. J. F. Glass, vol. ending Dec., 1860, $5; Smith Gordon, vols. 4, 5, 6, 7, $20; A. P. Jones, vol. 6, $5; J. W. Brown, vol. ending Jan., 1860, $5; J. E. Keator, vol. ending Aug., 1861, $5; W. A. Cary, vol. ending Dec., 1860, $5; M. Marsh, vol. 6, $5; J. Fennimore, vol. 6, $5; R. Fowler, vol. 7, $5; C. F. Chamberlain, vols. 6 and 7, $10; E. Martin, vols. 4, 5, 6, $15; Alpuente, vols. 4, 5, 6, $15; G. S. Matlock, vol. 6, $5; E. Bland, vol. 7, $5; J. B. McMillan, vol. 7, $5; J. G. Feerney, vol. 6, $5; J. E. Walker, vol. 6, $5; W. E. Brickell, vols. 4, 5, 6, $15; Ed. Merrill, vol. ending Dec., 1860, $5; O. L. Ellis, vols. 6 and 7, $10.

A slight improvement on the past, but a meager list for January.

ERRATA.—In our last number, on page 815, fifteenth line from top of page, for "opium" read *quinine.*

EXCERPTA.

HYGIENIC TREATMENT OF DIABETES MELLITUS, OR GLUCOSURIA—(*From the French of Bouchardat.*)—This paper contains the results of the labors of Bouchardat, for more than twenty-five years, on the most important portion of the treatment of glucosuria.

Food.—The first rule to be observed in the alimentation of a patient affected with glucosuria is the suppression, or at least a large diminution in the quantity of fæculent articles; such suppression or diminution constitutes the basis of the treatment. The following should be prescribed, as far as possible: ordinary bread made either of wheat, rye, or barley; pastry of rice, corn, or other grains; potatoes and potato-starch, arrow-root and other forms of starch; vermicelli, semola, macaroni, etc.; leguminous seeds, such as kidney-beans, peas, lentils, and common beans; chestnuts, buckwheat; sweetmeats and saccharine drinks. The exclusion of saccharine food from the regimen should be absolute, and continued for a greater length of time than that of fæculent articles. The use of milk is unfavorable.

The articles of food which are allowable are very numerous. Meat, poultry and other kinds, can be recommended; and they can be prescribed boiled, broiled, or roasted, or cooked in any other way, with all the condiments that may stimulate the appetite; avoiding, however, the use of flour in the sauces. Liver should be prohibited, as well as gelatinous preparations. Fresh and salt-water fish offer a rich variety for the table of the patient. Other animal food, such as oysters, muscles, snails, lobsters, prawn, frogs, etc., may be employed every day with advantage. Eggs, in all the forms that culinary art has devised, are very useful. Although milk is but little suited for glucosuric persons, yet good fresh cream is, on the other hand, allowable. Cheese of all kinds should be forbidden. The list of legumes allowable is tolerably large: it need only be remarked that fatty bodies (oil, butter, grease, etc.,) should be employed in more than ordinary quantity in their preparation; that, in the sauces or dressings, the yellow of eggs and cream should replace the proscribed flour; and that, whatever they may be, those legumes should always be avoided which are very fæculent. Mushroons and truffles may be employed.

From time to time, in moderate quantity, the following fruits can be used: apples, pears, cherries, raspberries, strawberries, pine-apples; but always without the addition, of sugar, and only when the urine is not saccharine.

Before speaking of beverages, we must notice a matter of great importance—the replacement of bread and pastry. Patients affected with glucosuria complain bitterly of being deprived of bread and fæculent food; if the desire for such can be diverted, it is always well. For seventeen years that I have employed gluten bread, its usefulness has not been denied; and it is an adjuvant which has been very important in a large number of cases of glucosuria. Some have pretended to find in gluten bread a cure for glucosuria; such was never my opinion. I sought simply for an article of food which might replace bread without having its inconveniences for patients, and I believe this is such an article.

Some patients support, without any great annoyance, abstinence from bread and starch food; for such gluten bread is not required; but, I am bold to say, they are exceptional cases. For such, one or two cakes, in the course of the day, answer instead of bread. Some, indeed, whose attack is but slight, can, by symply diminishing the amount of starch ingested, or by the employment of alkalies or energetic exercise, cause a return of the urine to its original condition: such have no need of gluten bread. But these cases are by no means serious and are infrequent.

Beverages.—Wine plays an important *rôle* in the treatment of glucosuria, and I firmly believe that I have rendered a service just as great to such patients, by substituting alcoholic beverages for fæculent articles of food, as in demonstrating that abstinence from such articles was indispensable to them. The old red wines of Burgundy and Bordeaux are preferred; yet all red wines, that are rather astringent than acid or sweet, suit very well. As regards quantity, I do not give less than a litre (about one quart apothecary's measure) in twenty-four hours; and for vigorous men, who exercise much, it is sometimes proper to give still larger quantities. Beer is very unfavorable, and the dextrine which it contains explains this action. I proscribe saccharine *liqueurs*, but I grant freely the use of a small glass of rum, brandy, or kirschwasser, at the principal meal. Coffee is useful for almost all patients affected with glucosuria, and, if not contraïndicated, I prescribe at least one cup after the principal meal. It should be taken without sugar; but a little rum, brandy, or cream may be added. Some patients take two or three cups a day.

Wine-and-water is preferable to all tisans. Sometimes it is well to take an infusion of hops or of bitter vegetables. Under any circumstances, it is well for patients to drink with great moderation. A quart of pure Bordeaux wine will allay the thirst of the day, if the regimen suggested is followed.

Lemonades, etc., sought after by patients with much desire, are very detrimental; they do not appease thirst better than cold water, and they contribute to the saturation of the free alkali of the blood, which prevents, as Chevreul has long since proven, the prompt destruction of combustible alimentary material incessantly introduced into the circulatory apparatus, from the digestive apparatus. I forbid them absolutely. Mialhe has also insisted, with as much earnestness as reason, against the use of acid drinks.

Patients should drink small quantities at a time; large quantities of liquid ingested at once may contribute to keep up the abnormal secretion in the stomach, with reference to which I have so much insisted. They should always eat slowly. This is for a double reason; first, to avoid indigestions, which are to them more unfortunate than to other patients; secondly, to favor the return of the stomach to its ordinary dimensions. To attain this end, also, we may employ a band of flannel, slightly tightened about the region of the stomach.

Clothing.—I have shown that sudden chills were pernicious to patients afflicted with this disease. Hence the propriety of employing good flannel underclothing. This also serves to reëstablish the functions of the skin, which should be active. Hence, I always prescribe flannel garments, covering the whole body, so as to keep up gentle moisture of the skin.

Exercise.—Patients who have had the disease for some time experience spontaneous weariness—a sensation of debility, sometimes accompanied with pains in the thighs, legs, and articulations, which are increased by the slightest work or smallest exertion: it is difficult to require them to exercise, but as soon as, from a suitable regimen, their forces begin to return, they must use exercise. Walking, exercising the whole body by some manual labor, or some gymnastic recreation, are of undoubted utility. The exercise should be progressive: if too violent, it will determine injurious curvatures; neglected, it will retard the complete establishment of the strength, and, consequently, the cure.

Sea-bathing and Hydrotherapeia in the Treatment of the Disease.—River bathing, when it is aided by exercise in swimming, is useful; but the advantages of sea-bathing, when it can be supported, are more constant and greater. To determine diaphoresis in difficult cases, I have sometimes employed hydrotherapeia; but the patients should be continually under supervision in the use of such treatment, as when badly employed, it may produce serious accidents; but when wisely directed, and seconded by a regimen intelligently adapted, it has rendered me excellent service.

It is evident that the treatment should be only gradually abandoned, and when the glucose has disappeared from the urine. It is proper always, *then*, to augment the quality and quantity of the calorifacient articles of food. Good beer may be taken after each repast; three or four spoonsful of cod-liver oil during the day: these are the articles which I would require during the use of sea-baths, or the employment of hydrotherapiea. There must be more caloric: it is necessary that a supply of calorifacient materials at least equal to the loss should be furnished.

By way of *résumé* as to the indications and contraïndications for hydrotherapeia in this disease: When the glucose disappears, or is diminished, so that fæculent materials can be more largely employed, and there is daily increase of strength, hydrotherapeia and sea-bathing are most efficacious methods of treatment in glucosuria; when, on the contrary, under such treatment, the glucose increases, the strength diminishes, etc., these methods aggravate the disease; for we are abstracting caloric from a machine which is already too much impoverished.—*Clinique Européenne* and *Am. Med. Monthly.*

L. H. S.

An Analysis of Two Thousand Consecutive Cases in Midwifery.—By G. Rigden, Esq., etc. This paper was read before the East Kent and Canterbury Medical Society, and gives the following valuable facts: In the 2,000 labors 2,025 children were born. One mother gave birth to twins at four consecutive confinements. Four mothers died from the complications or consequences of labor; one from convulsions and coma two hours after delivery, and three from puerperal fever, occurring five, six, and fourteen days respectively after labor. Ninety-six children were still-born, forty-six males and fifty females. Four cases had retained placenta, three from inertia and one from irregular contraction of the uterus. Five, after labor, had retention of urine, but all recovered. Five mothers had puerperal convulsions; one died. Twenty-six of the labors were with breech presentation; all delivered naturally; eight of the children died. Fourteen were face presentations; five of the children died; eleven of these cases were delivered naturally. Twelve cases were shoulder or arm presentations, and all were delivered by turning; five of the children being still-born. There were six cases of placenta prævia; all delivered by turning; all the children premature and still-born. Nine were cranial presentations, delivered by the forceps; six children being saved. Five mothers subsequently had puerperal fever; three died. One had puerperal mania, terminating in recovery after six months. Eight children were more or less deformed. Prolapsed funis, two cases. Of the twins, there were: both males, six; both females, twelve; male and female, seven. —*Brit. Med. Journ., Oct.* 29, 1859.

One Thousand Cases of Obstetrics—By J. S. Harrinson, Esq.—This paper was read before the Reading Pathological Society, and gave the following data:

In mothers between 15 and 19 years,	11
" " 20 " 24 "	176
" " 25 " 29 "	263
" " 30 " 34 "	269
" " 35 " 39 "	192
" " 40 " 44 "	80
" " 45 " 49 "	9

November, December, and January had more than any other three consecutive months. May had the largest; April, the smallest. Classifying them according to the hours, there were 270 occurring between 12, P. M. and 6, A. M.; 268, from 6, A. M. to 12, M.; 214 from 12, M. to 6, P. M.; and 248, from 6, P. M. to 12, P. M.

The duration of pregnancy averaged about 280 days. The average duration of labor was 7.36 hours; first labors being, as is usual, much longer. The 1,000 labors resulted in the birth of 1,010 children; 504 males, 506 females. Breech and feet presentations numbered 39; face 17; with an extremity, 121. Lingering labors, 15; instrumental, 17; preternatural and complicated, 61.—*Ibid.*

Thirteen Hundred Cases of Midwifery.—By A. Smith, Esq., etc.—In these 1,300 cases 1,320 children were born; 700 males, 620 females; still-born, 65; premature births, 38. Presentations of the breech, 23; of the face, 2; forehead, 20; extremities, 9. Prolapse of the funis occurred in 6 cases. Placenta prævia, complete, 3—children all stillborn; partial 2—one child dead. Three mothers had convulsions; three had peritonitis; one, mania. Version was performed in 4; the forceps were used in 25; craniotomy in 3. There were no cases of retention of the placenta, or of severe post partum hæmorrhage. He attributes the absence of these complications to the practice of applying a binder as soon as the second stage of labor commences, tightening it after delivery of the child, and again after the expulsion of the placenta, and abstaining from the use of ergot. The number of forceps cases is great, but no bad results have followed, and he believes their timely employment prevents laceration of the perinæum rather than causes it.—*Lancet, Nov.* 12, 1859.

STILL-BORN CHILDREN.—By J. HARDAWAY, Esq., etc.—This paper gives 732 cases, in which 72 children were still-born, showing, in the aggregate, about 10 per cent. No other statistics are given.

STATISTICS OF FOUR THOUSAND AND FORTY-NINE CASES OF MIDWIFERY.—By R. DUNN, F.R.C.S., etc.—Of these there were 228 premature births; 2,133 children were males, 1,688 females; 2 cases of triplets and 45 of twins; 3 cases of monstrosity. There were 170 still-born; 60 cases of preternatural presentation. Prolapse of the funis, 11; of which 8 were born dead. Breech presentations, 25; still-born, 9. Face presentations, 3; face to pubis, 11. He had 10 cases of craniotomy; 6 cases of plecenta prævia; 30 of adherent placenta; 12 cases of puerperal fever, 3 died; 4 cases of puerperal convulsions, all recovered. Phlegmasia dolens occurred in 6 cases, and 2 proved fatal; scarlatina in 3, and 1 died.

CHRONIC INVERSION OF THE UTERUS—By Dr. F. RAMS-

BOTHAM, of London.—The following case is related by Dr. Ramsbotham, of the London Obstetric Hospital. It is interesting, as showing the possibility of spontaneous replacement of an inverted uterus, after it had been displaced for some months, and even after some very rough treatment:

"I was sent for on July 20, 1839, to see a young lady of relaxed fibre and cachectic habit, who had been delivered of her first child, after a severe labor, twelve hours before, and whom I found suffering from violent forcing-pain and great hæmorrhage. She was exceedingly depressed. I detected a tumor occupying the vagina, as large as a man's closed fist, entirely covered by a layer of coagulum. It was sensitive, though not painfully so, possessed a doughy feel, and became harder when compressed. The uterus could not be felt in the abdomen; but above the pubes there was a sensation of a most unusual void. As she had passed no urine since delivery, I relieved the bladder; and having no doubt that the tumor was the uterus inverted, I made strenuous efforts to restore it, without effect, but not without putting her to considerable pain. After some time I desisted in despair, fearing that I should lacerate the upper part of the vagina; for the tumor had become hard while I was making these efforts, and, in the same proportion, the circle of the mouth became closed around it in the form of a forcibly constricted ring. She passed a quiet night under the influence of morphia, and in the morning voided urine naturally, with some coagula. She was confined to bed for two, and to the house for three months, with severe lumbar pains, and copious irregular hæmorrhages. From the middle of October till the end of December, she was free from flooding, but still annoyed by bearing-down pains, attended by a profuse, glairy, leucorrhœal discharge. The hæmorrhage returned, and continued for two months, after which she was moved into the country, and I did not see her again till May 22d. She was then in such imminent danger that, in consultation with Mr. Hamilton, at that time assistant-surgeon to the London Hospital, and with her general attendant it was agreed to remove the tumor by ligature as soon as she was a little recruited. It was at this time the size of an ordinary nonpareil apple, and had every characteristic of an inverted uterus. On June 5th, with the assistance of the gentlemen mentioned above, I placed a ligature round its upper part by means of the double canula. The application gave but little pain at the moment, and the bleeding, which had been going on almost uninterruptedly, ceased immediately. In three or four hours, however, a violent rigor supervened; this was followed by symptoms of intense peritoneal inflammation, and the ligature was removed twenty hours after its application. The pain and other inflammatory symptoms gradually subsided; in a few days she was able to leave her room; she menstruated on July 13th less profusely than she had been accustomed to do, and continued regular in that respect; she regained her flesh, color and appetite; was able to take a long walk; had no bearing down nor difficulty in passing water; and, when I saw her in January, 1841, she told me that she enjoyed better health than she had done for many years. Nothing solid had ever passed from the vagina since the operatien. Early in the year symptoms of pregnancy manifested themselves; and I delivered her of a six months' fœtus on July 7th, in the same year, 1841. Since then I have also attended her with four other children. On one occasion the placenta adhered, and I had to introduce my hand to remove it. I sought for a polypus in the cavity, but there was nothing like one. On another occasion after the placenta had been expelled naturally, she was harrassed with violent spasmodic bearing-down pains, which induced me to pass my hand into the uterus; I there found the fundus and posterior part of the body protruded considerably downward and forward, there existing evidently a disposition for inversion to occur again: this, however, was obviated by the introduction of the hand." This ought to give us additional confidence in any effort we may undertake for the purpose of remedying by manipulation, this serious accident.—*Med. Times and Gazette*, November 5, 1859.

End of the Black Doctor's Career.—So long as there are incurable diseases, dishonest men will find it an easy matter to catch in their nets the unfortunate individuals who are visited by such complaints. What wonder, when the conscientious medical practioner has plainly stated to the friends that his art cannot cure the disease, that these should believe in the deceitful promises of the charlatan? But the sway of these pests must ever be short, though infatuation will sometimes last a great deal too long. At last, however, the shallowness of the barefaced assumption is too plainly seen, and the whole fabric, built of roguery and lies, falls to the ground.

The most melancholy part of the matter is, that the patients, already severely tried by the disease, are but too often subjected to an out-of-the-way treatment, which mostly entails upon them severe suffering. We all know how cruelly many of these unfortunate people were tormented in this metropolis by the man who (we regret to say supported by some in our profession who ought to have known better) pretended to cure cancer. What has become of the wonder-working doctor, and whither has flown the enthusiasm with which the lay portion of the community and some deluded medical men spoke of his short-lived cures? Let this heartless hoax be a lesson and a warning, and let us hear no more of pretenders taken by the hand and introduced into families by the magnates of our profession.

Look at what has just taken place at Paris. The so-called Black Doctor, whom M. Valpeau, out of mistaken love for human kind, admitted into his wards and put to the test (with what sad results we all know), has had his fling, as the phrase goes. It is no longer the fashion to swear by him, and to tax honest medical men with envy and jealousy; the foolish, the aristocratic, the idle, and last, the most to be pitied, the unhappy creatures afflicted with cancer, have forsaken him; his carriages and horses are put up for sale; his furniture is given over to the hammer; and he himself is now in prison awaiting his trial for manslaughter.

The man is alleged to have caused the death of one of his victims by the medicines administered. This will be a curious trial; for not only will the impudence and effrontery of the adventurer come to light, but also the weakness, folly, and stupidity of the friends of the sufferers, almost all of them belonging to the higher ranks, amongst whom, on both sides of the channel, quacks of all kinds always find the most ready and profitable dupes.—*London Lancet.*

GOUT AND ITS CAUSES.—*To the Editor of The Lancet*—Sir: In a work written in 1804 by Dr. Thomas Garnett, of London, entitled "Popular Lectures on Zoönomia, or the Laws of Animal Life in Health and Disease," I find the following remarks on gout:

"The gout seldom occurs but in those who have for several years lived upon a full diet of animal food, often highly seasoned, and at the same time been in the habit of taking daily, or very constantly, a greater or less quantity of fermented liquors, either in the form of wine or malt liquors. This disease is seldon known to attack persons employed in constant bodily labor, and who live temperately, and is totally unknown to those who use no wine or other fermented liquors. I believe there never was an instance of a person having the gout who abstained from every form of alcohol, however he might live in other respects; and I doubt if ever the gout returned after a person had abstained from fermented or spirituous liquors for two years. There seems to be something in alcohol which peculiarly brings on this state of the constitution; and without it, it would seem that gout cannot be produced. Here, then, is an effectual method of curing the gout, which will no more return, if strictly persevered in, than the small-pox will attack the constitution after inoculation."

Nearly thirty years' experience and observation have convinced me that Dr. Garnett was quite correct in his observations as to the cause and cure of this painful malady; and my object in now writing is to inquire if any of your numerous readers can inform me if they have ever met with a case of gout in a person who totally abstained from every form of alcohol, or was not perfectly cured by abstaining from the same for two years. When I say gout, I do not mean rheumatism. Charles Dickens, in *All the Year Round*, in an article on "Good Qualities of Gout," says:

"A variety of endeavors have been made to define the difference between gout and rheumatism. Thus, gout is rich man's rheumatism, and rheumatism is poor man's gout, which is good only as a figure of speech. Another: put your toe in a vice; turn the screw till you can bear the pain no longer: that's rheumatism. Give the screw one turn more:

that's gout." The same writer says: "But men who have lived soberly and temperately all their lives have, nevertheless, had gout, from their goutage till the close of their allotted term." Again: "One of our most esteemed medical classics has written, that when once gout has got hold of your system or your family, take all the precautionary measures you may, you will have gout now and then, especially towards the close of winter."

I do not believe it, and am quite convinced that alcohol is the cause, and abstinence from it the sure cure, of gout.

I am, sir, your obedient servant,

L. M. Bennett, M. R. C. S.

Winterton Brig, Lincolnshire, Dec., 1859.

Action of Poisons on the Nerves.—*To the Editor of the London Lancet*—Sir: A question of some physiological interest induces me to address you briefly on the value of an objection which, I am told, was urged against the conclusions of a paper I submitted to the British Association last month. That paper endeavored to prove, on anatomical and experimental evidence, that the supposed essential distinction between sensory and motor nerves did not exist; but that, both in properties and functions, the two nerves were similar: the posterior nerves being devoted to skin-sensations and skin-movements, and the anterior nerves to muscle-sensations and muscle-movements.

I am not, of course, about to reöpen that discussion here; but to examine the value of one objection, which, invoking the modern discovery of the peculiar effects of certain poisons on the nerves, has an interest for all physiologists, quite apart from any bearing it may have on the question of functions.

The discovery is this: There are poisons, such as the *woorara*, which destroy motion; and poisons, such as strychnine, which destroy sensation. The muscles of an animal poisoned by woorara retain their contractility, and will contract on being galvanized; but the nerves lose their power of exciting contractions in these muscles. Nevertheless, sensibility is not destroyed in this paralyzed animal. The woorara leaves the posterior nerves intact.

The facts are sufficiently striking, and fall in so well with the current of hypothesis respecting the essential differences in the two nerves, that they may well seem to furnish physiologists with a new confirmation; and I am sorry that amongst the many points which were necessarily omitted from my paper, owing to its length, I did not at least allude, in passing, to this argument. But although I had fully considered it, and satisfied myself that it had no bearing on the question, its discussion would have led beyond all reasonable bounds. Nor dare I venture to trespass on the patience of your readers by setting forth the reasons which seem to me to render the argument altogether inapplicable. It will be enough if I oppose facts to facts, and show that the supposed distinction cannot be established by the different effects of poison.

We are utterly in the dark as to the mode of action of poison upon nerves, and as to the kind of alteration they produce. It is an interesting physiological problem; but the problem is without even an approach to a solution. In our ignorance of the conditions which determine the effects, we must be slow in drawing conclusions from them. I will begin with a striking example of the mysteriousness of the conditions which determine toxicological effects. No one doubts that the muscles of the heart are true muscles, having similar properties to those possessed by other muscles. *Yet there are poisons which destroy the contractility of the muscles of the heart, leaving that of the other muscles unaffected.* Will any one from this fact conclude that the two muscles are essentially different?

This fact is cited as an introduction to one still more conclusive. The woorara poison paralyzes the limbs of an animal, but (in the dog or reptile) does not paralyze the tail. *The nerves which move the muscles of the limbs are found to be completely lamed, while the nerves which move the muscles of the tail act as vigorously as ever.*

Now, here are two groups of motor nerves identical in all respects, one of which the poison acts upon, the other remaining unaffected. Unless, to defend an hypothesis, we rush to the extravagant supposition that the properties of these two groups of nerves are essentially different, and that the motion of the tail is affected by a different kind of agency from the motion of the limbs, we cannot resist the conclusion that the conditions which enable the sensory nerves to resist the action of woorara, are similar to the conditions which enable the motor nerves of the tail to resist it.

It may be further added that, although the woorara paralyzes the limbs, it does not paralyze the heart and intestines; yet they are also moved by motor nerves. Moreover, even the motor nerves which *are* affected by woorara, are only affected in their peripheral terminations, not in their trunks, as Kölliker proved experimentally.

Without, therefore, adducing any arguments against the supposed bearing of the toxicological facts on the question of the alleged distinction in the functions of the anterior and posterior nerves, I think the mere opposition of other toxicological facts sufficient to set aside the objection which was raised to my criticism of the current hypothesis.

I am, sir, your obedient servant,

G. H. LEWES.

TREATMENT OF SPINA BIFIDA BY INJECTIONS OF IODINE.—We can scarcely imagine more unpromising subjects, for hopeful medical or surgical treatment, that the victims of spina bifida, which have fallen under our observation during a somewhat active practice of more than thirty years. Having but little confidence in the remedies usually proposed for the removal of this strange malady, we merely allude to the subject in order to inform our readers that in the September number of the *Chicago Medical Journal*, Prof. Brainard reports the cure of five out of seven cases of spina bifida, by means of iodine injections. Five of these cases were operated on by himself, and two by Dr. Crawford, under his direction. Two of the cases described as follows, by Dr. Brainard, will serve to illustrate his practice:

"CASE 1.—The subject was a girl thirteen years of age. The tumor, situated at the top of the sacrum, was nine inches in circumference, and three inches in heighth. Its surface, and the skin adjoining, presented numerous cicatrics, marks apparently of former ulcerations. The child was partially paralytic in the lower extremeties, idiotic, and passed the urine and fœces involuntarily. The head was small and the bones perfectly formed.

"The first injection was performed on the 2d December, 1847. A puncture was made with the point of the lancet, half an inch distant from the point of the base of the tumor, and a small-sized exploring trochar carried thence into the sac. Through the canula, a solution of half a grain of iodine, with one grain of iodide of potassium, in one ounce of distilled water, was injected. The canula was immediately withdrawn, and a compress and bandage applied so as to prevent the escape of the liquid.

"The injection produced a sharp pain which soon subsided. Redness, heat, and tenderness of the tumor followed, for which a cathartic was administered, and evaporating lotions applied to the part. Compression was resorted to as the heat and tension subsided, and, December 27th, the tumor was about half its former size.

"At this time, a second injection was resorted to, of half the strength of the first. This produced little inflammation. The compression was continued. January 15, 1848, the fluid was so far absorbed as to render it easy to press most of it within the spine, and a common spring truss for hernia was applied, the pad upon the opening.

"The case then passed from under my observation, but fell under the care of Dr. Huber, who had at that time charge of the county poor at Chicago. The following is his account of the case and his treatment:

"'I injected the tumor thirteen times, viz: May 3, 10, 20—June 15,22—July 14—August 10, 15, 25—September 5, 16, 26, and October 20, 1848. The injection for the first four times was of the strength of four grains of iodine and sixteen grains of iodide of potassium to the ounce of distilled water, beginning with one and a-half, and increasing to three ounces at the fourth injection.

"'The sac was then much contracted, and I therefore doubled the strength of the solution, and injected but half an ounce. After the first two operations, the child had some slight febrile symptoms, but not since. I consider the cure complete. She has improved in the use of her lower extremeties, being now able to walk across the room.'

"Two years after the operation the child remained cured, and much improved in every respect."

"CASE 2.—This case occurred to me April 12, 1849. The tumor was of the size of a closed fist, and had been ruptured during labor.

"By the application of artificial heat, the first ill effects of the rupture were dissipated. A reddish serum was discharged from the sac and canal, which, on the 17th, became copious and offensive. Injected a solution of iodine, four grains, iodide of potassium, twelve grains, to the ounce of distilled water. The solution escaped as fast as injected.

"30*th.* Repeated injection: discharge purulent.

"*May* 2*d.* Injected with solution of sulphate of copper, and applied compression over the opening. The sac was contracted down to a hard tubercle, with a small opening in the centre.

"The injection was repeated on the 4th and 6th, and the child seemed well in every respect.

"*May* 12*th.* Opening quite closed: *head noticed to be enlarging: bones separated.* This continued till June 1st, when the child died in a paroxysm of convulsion.

"This case resulted fatally from closing the fistulous opening in the skin too soon, but it illustrates in a striking manner, the beneficial effect of injectiens into the spinal canal, and the little danger to be apprehended from their use. The child lived over six weeks.

"I was not aware, at the time, of the danger of making compression over such an opening, but held, in common with the whole profession, the erroneous opinion, that the danger in cases of inflammation of the meninges of the cord and brain was greatest when an opening existed.

"This is an error which has recently been pointed out by Dr. Thompson, of Columbus, Ohio. Far from closing such an opening, the sac should be punctured if acute inflammation results from treatment, and the liquid drawn off."

As Dr. Brainard's successful cases date back several years, it would be interesting to know the present physical and intellectual state of the subjects thus rescued, apparently, from a most pitiable condition.—*Peninsular and Ind. Medical Journal.*

TREATMENT OF ASCARIDES.—I am glad that your vrey intelligent correspondent has again called the attention of your readers to this subject, which is as he states, one of considerable importance to a great number of individuals. I can fully bear testimony to the correctness of his assertion, that, although the complaint *a priori* appears to be a curable one, many persons are tormented with these animals from infancy to their graves; although many medicines appear for a time to exercise a curative influence, no remedy has hitherto been discovered that in every particular can be looked upon as a specific. I am unable to throw any light upon the inquiry in what portion of the intestines these parasites live and breed, or whether their ova are deposited high up, and the animals are developed as they pass down, making their presence known only as they enter the rectum, and approach an exit into the outer world; but setting aside this investigation for other inquirers who are doubtless now fully alive to its importance, and who have time and inclination to enter upon the task, I beg to recommend for the use of those who are at present laboring under the complaint, two substances, from the employment of which I have seen incalculable benefit, and succeeded in eradicating intestinal worms, and in many instances effecting a perfect cure. These substances are vegetable charcoal and common salt. The method in which I employ the latter has this peculiarity: I advise it to be taken dry, with a little bread or biscuit, and not in solution—a small teaspoonful is the quantity I give an adult, the first thing in the morning; to children half the quantity. Salt taken in this manner has a widely different effect on the stomach to that produced by salted meats, or when dissolved in broth or water. The pure salt taken in the way proposed is decomposed, and the chlorine liberated before it enters the general circulation, and thus comes more immediately in contact with the thick mucus which forms, it is supposed, the nidus in which the ova of all worms are deposited, and in this manner destroys them. Immediately after breakfast from twenty to thirty grains of purified vegetable charcoal, mixed with a little sugar, and a very little water or weak tea should be taken; and this quantity repeated after the three principal meals daily; if the sugar is omitted the charcoal answers equally well in a wineglassful of water. In a fornight's time this treatment is generally successful, though the charcoal may be continued advantageously for a longer period. Both these medicines are highly useful in correcting the evil consequences of malassimilated food. Charcoal, in particular, is a remedy of singular efficacy in most of the gastric disturbances that proceed from the above-named cause, and for all those persons who are martyrs to the maladies incidental to a stomach in difficulties—maladies that make people miserable, without sending them to bed or absolutely distroying them—I know of no remedies more deserving of commendation than charcoal and salt. Neither substance can do the least harm to the intestinal walls, while both are correctives of that tendency to rapid putrescency, that pervades all food that is not properly digested, an effect that is invariably followed by all the evils attendent on poisoned blood. Let this fact, however, never be lost sight of, that simple as these medicines are, their adaptation to individual cases requires judgment, careful watching, and professional knowledge, and that their administration should not be undertaken without due consideration.—*Dr. James Bird, of London, in Med. Times.*

IMPROVED METHOD OF EXAMINATION OF THE EAR—*By Dr. A. Young, Jr., Farmington, Maine.*—Having had considerable experience in aural affections, and well knowing the absolute necessity of accuracy of diagnosis, to arrive at which requires, aside from the subjective symptoms, a thorough knowledge of the physical signs presented, I am induced to briefly record what I conceive to be a new method; and when once brought into vogue by aural surgeons, they will not only improve the facilities now afforded, but consider the *light* as practically "extended."

None of the authors whom I have consulted, and among them the best and most recent publications—Wilde, Pilcher, and Kramer—make mention of the use of reflected *sun* light; and as simple as the means thus afforded, no practical aurist, after a single trial, will adopt any other in the use of direct sunlight.

The common method, as detailed by authors, borrowing an extract from Wilde, is to have "the patient seated beneath the examiner, with the head slightly bent, opposite a window through which the sun is shining at the moment, and, if possible, between the hours of eleven and three."

Now, my method is available when the sun shines, between sun-rise and sun-set, by means of the following simple apparatus: To a foot, or base board, about eight inches square, is attached a rod two feet in length, bearing a sliding ring with a thumb screw, and an armature twelve inches long, having at the end a ball-and-socket joint with a thumb screw, and another short armature to hold a mirror six inches square.

To use the instrument (would not *solar-scope* be an appropriate name?) raise the lower sash of the window, and place it upon the sill, and rest the beam of the sash upon the top of the rod. Swing the armature out of the window, and by means of the thumb screws adjust the mirror to direct the rays of the sun to any part of the room you please.*

With such an instrument, the patient can have a stream of beautiful, clear light playing upon the auricle and within the meatus, with the head erect; and the examiner may be seated by his side, and with the aid of his speculum make as complete examinatian as desirable, and all of this without the inconvenience of a heated head and dazzling sunrays.

Now, that cold weather has come, I content myself by setting the *solar-scope* upon a table, close to the window, and direct the rays of the sun, as in the former case, to any part of the room; or having first seated my patient, direct the rays immediately upon the auricle. The distance at which the patient may be seated from the instrument, may be a few feet, or twenty, although ten feet is about right.

Those who know the difficulties attending some operations within the meatus and on the membrana tympani, such as removing polypi or any extraneous bodies, as well as a thorough explanation of the parts, cannot but appreciate this invention. The same may be used also for more complete explorations within the vagina, rectum and throat, and nasal fossa—and, as such, will be found a valuable acquisition in the procurement of a bright light.

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* This contrivance has long been used in Boston, by Dr. Clarke, for the purpose of directing the sun's rays upon the ear.—Eds. Boston Jour.

With one other improvement upon the *speculum auris*, I close this article. The thing was suggested by a more determined effort to ascertain the true cause of a slight inflammation as well as a peculiar itching sensation on the tympani of a patient, without any tinnitus or loss of hearing. The naked eye, in the best light, could discover nothing but the slightest vascularity of the membrane at the point of the malleus. On the application of a two-and-a-half inch focal magnifier, a small hair was found and removed, which the naked eye alone could not see, and by the removal of which the symptoms immediately ceased.

Hence, springs up what I shall call the *speculum-scope* (name suggested, however), and by means of which I can conceive that a good thing has been found at last, which, indeed, may be, by longer and larger glasses, adapted to other speculums. Mine is a *forceps speculum*, with an attachment on its left handle of a two-and-a-half inch focal magnifying glass, which is about the true distance from the external opening of the speculum to the membrana tympani—after it is adjusted to the meatus. Some eyes, however may require a larger or shorter focal glass. The lens may be thrown over the external opening of the speculum, when required.

I use the *speculum-scope* in the following manner: Having seated my patient in a chair, with the ear facing the *solar-scope*, a stream of light is reflected upon the auricle. Seated in a chair beside the patient, the speculum-scope is introduced into the meatus, and as soon as a view is had, with the right index finger move the magnifier over the opening of the speculum. The meatus is several times enlarged, and the beautiful mechanism of the tympani is viewed, with all its lesions and deformities.

With the above two excellent instruments, I have examined nearly two hundred patients within the last six months, and I am satisfied that after they have been fully tried, they will take the precedence of all others—or at least be found so indispensable that no aurist will be without them. —*Boston Med. and Surg. Journal.*

BATH, Me., Nov. 14th, 1859.

SURGICAL—*A New Foot Amputation.*—The following letter is from B. F. Palmer, the *patent-leg man,* and from his ingenuity and experience in the premises, his suggestions are worthy of attention. The letter is addressed to Prof. Weber, editor of *Cleveland Medical Gazette.*

"I have read with great interest and pleasure your article on the foot operations of Syme and Pirogoff, in the September number of your journal, and have no doubt that the article will do great good in this time of *haste for surgical fame,* when ambitious operators are *slashing* their way to immortality *on foot,* with all the impetuosity of a flying artillery.

"In my letter, from which you did me the honor to quote, you will notice that I do not, however, oppose *unqualifiedly* these new operations, and I doubt not that Professors Syme, Pirogoff, and many of their illustrious compeers in this country, are operating with an eye single to the best good of their patients, and believing, as I do, in *rational progress,* as well as in *just conservatism,* I shall watch the results of these wise surgeons' commendable efforts with hopeful solicitude. My studio is now a kind of international asylum for the mutilated. I may safely say that I have examined fifteen thousand stumps, and at the present time every form of new amputation is pressing on my attention. While I regret to be obliged to repeat that I have not yet seen a case of Syme's operation which has admitted of such an artistic appliance as is satisfactory to myself (some have been satisfactory to my patients), I yet hope to meet the requirements of this operation more successfully, so as to aid the surgeon *to the uttermost*, in suiting his place of election to the indications of natnre, in all cases. But science and art, now wedded, *must not be divided.* If the surgeon considers not wisely the form of artificial appliance most serviceable to his patient, his error will be irreparable; so will be the mechanician's, if he possess not a knowledge of the *living* (as well as of its imitative) mechanism. My researches are not confined to invention as yet. With the aid of our great surgeons of Philadelphia, to whom I am greatly indebted, I am exploring the mysteries of the cadavera (as well as the books) with reference to these new modes of operation. Dr. Pancoast has furnished three Pirogoff stumps for me, one of which I have treated successfully, and I have reason to anticipate better success still with the others, the stumps being better. It will be understood that I am now instituting no comparisons between these cases and those amputated at the points of election above the ankle, as before submitted. That I can do more intelligently after a reasonable trial, in a nnmber of the *best cases*, which so consummate surgical skill will certainly offer me. Pirogoff's is, without a doubt, the best ankle operation now practised. I have just devised an improved foot for this operation, (which is also adapted to Syme's) and if it shall prove as perfect in action as it appears in theory, it will remove many of the objections to these long *bulbous* stumps.

" The *ankle disease* seems to be contagious, and has exercised my mind, *hand* and *foot*, till I, too, am *halting* between two opinions. What will you say if I propose a *new mode*, better than Pirogoff's? I do not say that I can, and yet I have an idea which the first surgeons of our city have told me is worthy of consideration. I now give it to you. It may, like many other pretty theories, prove simply *impracticable*. I am not aware that it has been tried. My mode consists in a *horizontal* (instead of a vertical) division of the os calcis at the margin of its upper articular surface, and may be briefly sketched as follows :

" Make a curvilinear incision around the foot in front, from the lower part of one malleolus to the other, dividing the tissues a little lower than is usual in performing Syme or Pirogoff's operation, and round the sole, making the plantar flap long enough to meet the dorsal above the division of the bones. Dissect up a little above the ankle joint, then down around the astragalus, to its articulation with the calcaneus ; remove the astragalus, and divide the tibia, fibula and os calcis *horizontally*, removing the entire articulating surfaces of the two former. Now remove the calcaneo-astragaloid surface of the calcaneus, and place the cut edges of the bones in apposition, adjusting the flaps so that the cicatrix shall be above the incision of the bones. The calcaneus will be removed *upward* and *forward* about an inch, its centre being in a vertical line with the tibia, as seen in the sketch. Fix the knee, and bandage from it round the heel, if necessary, to hold the bones in place while uniting.

" This operation will shorten the limb an inch or more, giving space for the contraction of the muscles, and rendering the division of the tendo-achillis unnecessary. It admits of a suitable ankle joint in the false foot, and retains *the entire base of the os calcis* and its integuments intact, and in the true line of support indicated by the *centre of gravity*, thus affording a *broader and better base of support* in the false foot, the arch of which is made to fit the calcaneus just as the shank of a well formed boot fits an unmutilated member—perfectly comfortable, I think."